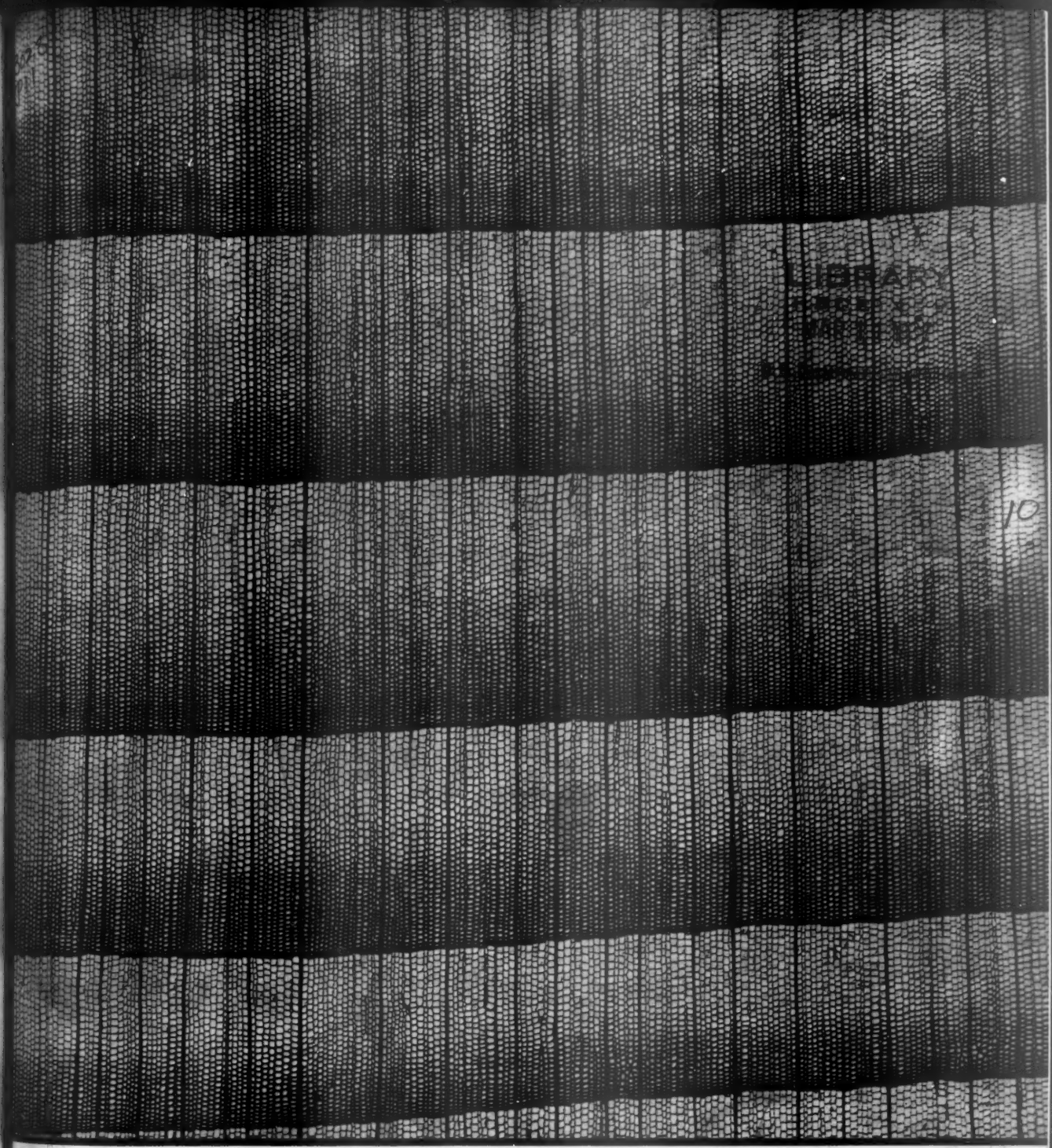

PACIFIC PULP & PAPER INDUSTRY

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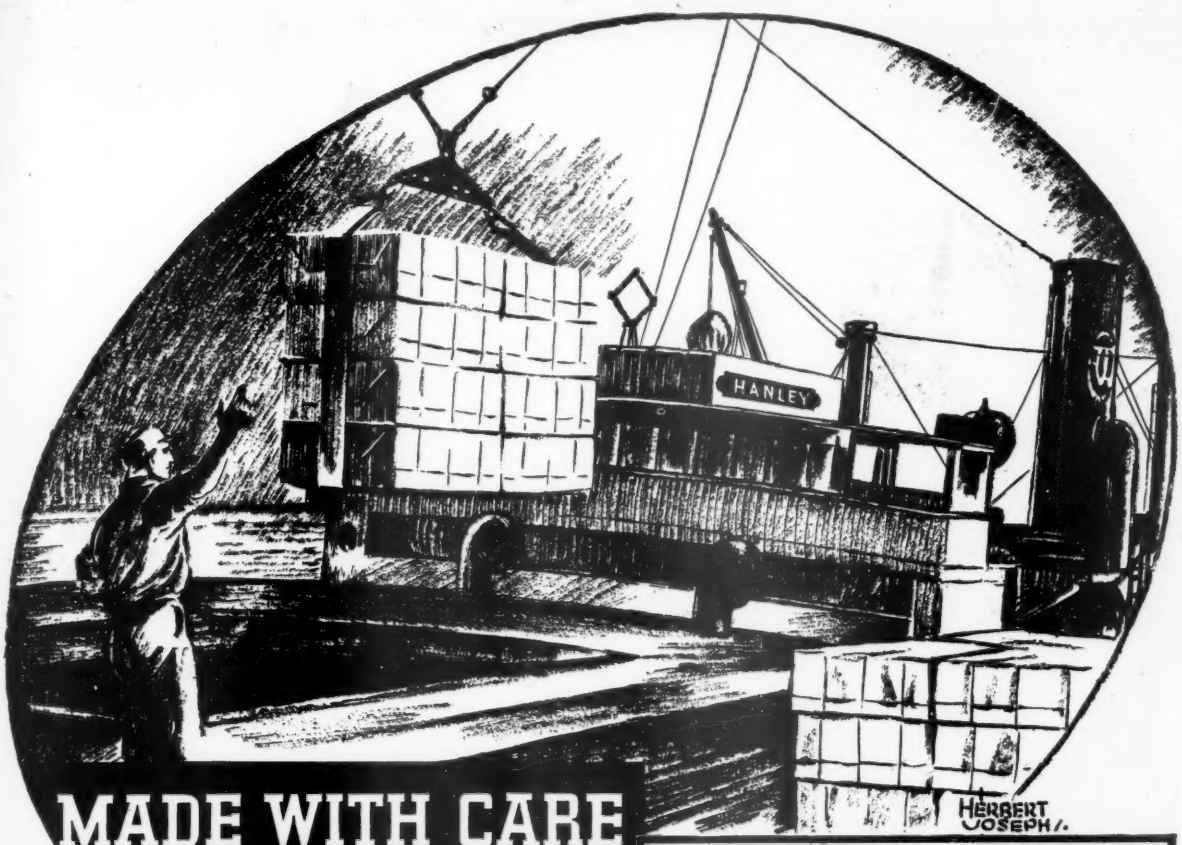

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LONGVIEW, WASHINGTON
Mills at Longview and Everett, Washington

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PACIFIC PULP & PAPER INDUSTRY

The Journal of the Pacific Coast Industry

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DECEMBER • 1936

PAPERS and DISCUSSIONS FEATURE SUPERINTENDENTS' MEETING

Fred Boyce Is Honor Guest

Although the regular winter meeting of the Pacific Coast Division of the American Pulp and Paper Mill Superintendents Association, held at the Hotel Multnomah, Portland, Oregon, December 4th and 5th, was an all around success, the highlight was as usual the Saturday afternoon round table discussion.

George W. Brown, chairman of the Pacific Coast Division, opened up the discussion with questions submitted in advance. He was assisted in the discussion of operating problems by L. S. McCurdy, paper mill superintendent of the National Paper Products Company's mill at Port Townsend, Washington, and by Fred C. Boyce of Wausau, Wisconsin, founder and first president of the association. Response from the large group in attendance was so good that at the close the opinion seemed general that this discussion was the best yet.

The Three Papers

While registration began Friday noon, December 4th, the business session opened Saturday morning at 9 o'clock. Chairman George W. Brown introduced Fred C. Boyce, founder and first president of the American Pulp & Paper Mill Superintendents Association, who was the honor guest of the Pacific Coast Division.

Mr. Boyce spoke a few words and paid tribute to his friend of many years James G. Ramsey, who passed away last February, after a lifetime of service to the industry.

The first paper was on "The Effect of Clean Water on the Manufacture of Pulp and Paper," and was presented by Kenneth Shibley of The Shibley Company of Seattle, water treatment engineers. It is published in full in this issue.

"Advancement in Kraft Pulp Bleaching" was the subject of Brian Shera's paper. Mr. Shera is with the Pennsylvania Salt Manufacturing Company of Washington, Tacoma, Washington. It is also published in full in this issue of PACIFIC PULP & PAPER INDUSTRY.

"The Horizontal Dual Press," the latest development in pulp and paper machinery, was described by T. C. Roberts of the Beloit Iron Works of Beloit, Wisconsin. A model of the press section was exhibited in the meeting room and was carefully studied by the superintendents present. H. O. Bing, sales engineer of the Beloit Iron Works accompanied Mr. Roberts to the Pacific Coast and assisted in answering questions about the new press section. Mr. Robert's paper appears in this issue together with a photograph of the press section in actual operation.

RAY C. ONKELS
Elected Chairman

The New Officers

Following the presentation of the three talks the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association held the yearly election of officers.

Ray C. Onkels, general superintendent of the Westminster Paper Company, New Westminster, B. C., was elected chairman for the coming year.

To the office of First Vice-Chairman L. S. McCurday, paper mill superintendent for the National Paper Products Company at Port Townsend, Washington, was elected.

James D. Fraser, operating superintendent of the Pulp Division, Weyerhaeuser Timber Company at Everett, Washington, was elected second vice-chairman.

Despite his suggestion that the secretary-treasurer's work be given to someone else, H. A. Des Marais was reelected to that office for the fourth time in recognition of his excellent work.

Ray C. Onkels, the new chairman, has been general superintendent of the Westminster Paper Company for fourteen years. He has had wide experience in the manufacture of tissue and specialties, having been with the Interlake Tissue Mills at Merritton, Ontario for six years and with the Thilmany Pulp & Paper Company at Appleton, Wisconsin for ten years.

L. S. McCurdy, the first vice-chairman, is paper mill superintendent of the National Paper Products Company's large kraft pulp and paper mill at Port Townsend, Washington, where he has been located since the mill started operations in 1928. Mr. McCurdy started work when fourteen years old with the Combined Locks Pulp & Paper Company, where he remained for more than six years. Later he worked in the mills of the Wisconsin River Pulp & Paper Company at Stevens Point, Wisconsin,

L. S. McCURDY
First Vice-Chairman

and the Dells Paper Company at Thorold, Ontario.

From there he moved to the Kalamazoo Vegetable Parchment Company as machine room superintendent. He next became assistant superintendent for the International Paper Company at Niagara Falls, New York.

His work next took him to Havana, Cuba, where he stayed for five years as general superintendent for the Papelera Cubana. Leaving Cuba, Mr. McCurdy became superintendent for the Albermarle Paper Company at Richmond, Virginia, leaving there in 1928 to come to Port Townsend.

James D. Fraser, the second vice-chairman, is operating superintendent of the Pulp Division, Weyerhaeuser Timber Company at Everett, Washington. He started his career in the industry with the Washington Pulp & Paper Corporation at Port Angeles. He left there for the Grays Harbor Pulp & Paper Company's mill at Hoquiam, Washington, when the mill started in 1928 and remained there until he joined the Weyerhaeuser organization in the latter part of 1935.

H. A. Des Marais, who was reelected to be secretary-treasurer, is the Pacific Northwest representative for the General Dyestuff Corporation with offices in Portland, Oregon.

George W. Brown of Millwood, Washington, as the retiring chairman automatically becomes a member of the executive committee of the Pacific Coast Division, which cooperates with the active officers. The other members of the executive committee are: H. R. Heuer, operating superintendent Pulp Division Weyerhaeuser Timber Company at Longview, and Ferdinand Schmitz, Jr., superintendent of the Rainier Pulp & Paper Company at Shelton, Washington.

The Retiring Officers

The officers who served the Pacific Coast Division during the past year were:

George W. Brown of Millwood, chairman and sparkplug of the discussions; George Cropper, first vice-chairman and assistant to D. B. Davies, manager of the Rainier Pulp & Paper Company; Ray C. Onkels, second vice-chairman and general superintendent of the Westminster Paper Mills of New Westminster, B. C.; James P. V. Fagan, third vice-chairman and superintendent of the Anacortes Division of the Puget Sound Pulp & Timber Company of Bellingham; and H. A. Des Marais, secretary treasurer.

The Friday Program

The golf tournament scheduled for Friday afternoon at the Columbia-Edgewater Country Club under the direction of W. A. Kelly of Portland, Pacific Coast representative for the Waterbury Felt Company, and Dan Danielson of the Simonds Saw & Steel Company, did not materialize due to a heavy rain, but the numerous fine prizes were distributed at the Saturday evening banquet through a drawing.

In the evening the informal paper costume party turned out an astounding array of costumes, all made of paper. Some went to much trouble to make intricate ones and a great many were not only illustrative of what could be done with ordinary paper, but were attractive as well.

This journal expresses its appreciation to those who selected covers from past numbers of PACIFIC PULP & PAPER INDUSTRY as the material for their costumes. Prizes were awarded to the three best women's and the the three best men's costumes.

For those who did not come prepared with paper costumes Carl Braun, manager of the Hawley Pulp & Paper Company, thoughtfully provided Hawley cheviot garment bags, tissue and gummed tape. Costumes were literally made on the spot.

Fred Boyce was presented with a 10-gallon hat by the Pacific Coast Division, but there was a string tied to the gift, he must wear it at all the functions. Mr. Boyce dutifully obeyed.

Saturday Luncheons

After the election of officers Saturday morning a stag luncheon was held at the hotel, Carl Braun serving as chairman. During the luncheon he introduced the new officers and the retiring ones who were present. A talking picture was shown of the operations of the Panama City, Florida mill of the Southern Kraft Corporation. This unusually well done picture began with the woods operations and carried on through the kraft process into the making of the fibre containers and their filling with food and drug products for shipment to consumers.

H. A. DES MARAIS
Reelected Secretary-Treasurer

JAMES D. FRASER
Second Vice-Chairman

The ladies attending the meeting were entertained at, so your reporter heard from his correspondents, a lovely luncheon at the Columbia-Edgewater Country Club, which was arranged by Mrs. John E. Hassler. Following the luncheon was a card party and prizes were awarded both winners and losers so all the ladies had a very enjoyable time.

Reception and Banquet

Saturday evening a reception was held in honor of Fred C. Boyce, who came from his home in Wausau to attend the meeting. Mr. Boyce, who "retired" a year ago from the superintendency of the Wausau Paper Mills, which position he held for thirty-two years, is without doubt the best known and one of the best liked superintendents in the country. He founded the organization in 1919 and was its first president. He has been active ever since, never missing a national meeting and taking in a great many of the section meetings. Even after his "retirement" Mr. Boyce remains a member of the association's finance committee. He is also president of the D. J. Murray Manufacturing Company of Wausau, and vice-president of the Wisconsin Paper Products Company, paper distributors of Milwaukee. The latter company is operated by two of Mr. Boyce's sons.

Fred Boyce has been in the paper industry over fifty years. He started with the Hudson River Pulp & Paper Company at Palmer Falls, now the Corinth, New York, mill of the International Paper Company. Mr. Boyce says this mill made the first groundwood and sulphite made in the United States. The product of the mill was news print. From Corinth he went to the Falls Manufacturing Company at Oeonto Falls, Wisconsin. After a few years he went to Wausau where he became superintendent and remained there until he retired on December 1st, 1935.

With justifiable pride Fred Boyce

speaks of the many men successful in the pulp and paper industry, whom he started in the business. While machine tender at the old Palmer Falls mill Fred Boyce gave Robert B. Wolf, now general manager of the Pulp Division, Weyerhaeuser Timber Company, his first job in a paper mill, that of broke hustler. He also started out Joseph Ryberg, superintendent now of the St. Helens Pulp & Paper Company, and Frank Monahan, paper mill superintendent at St. Helens. W. A. Kelly, for many years a superintendent and mill manager and now in the pulp and paper mill supplies business in Portland, was another of Fred Boyce's "boys."

Mr. Kelly accompanied Mr. Boyce on his Pacific Coast visit from the time he arrived in Spokane on November 22nd until he left Portland on December 6th for California.

A crowd of approximately one hundred and seventy-five attended the banquet following the reception in honor of Mr. Boyce. Z. A. Wise of the Griffith Rubber Mills of Portland, well known as a toastmaster, performed the introductions with humor and skill.

At the speakers table were: Mr. Boyce, Mr. George W. Brown, Mr. and Mrs. W. A. Kelly, Mr. and Mrs. Ray C. Onkels, Mr. and Mrs. L. S. McCurdy, Mr. and Mrs. H. A. Des Marais, and Mr. and Mrs. John E. Hassler. Mr. Hassler was general chairman of the convention and Mrs. Hassler was in charge of the ladies program.

Toastmaster Wise introduced the ladies at the table and Mr. Brown, Mr. Onkels and Mr. Hassler, before calling upon Mr. Boyce.

Mr. Boyce told the group that it was a great pleasure to return after two years and to renew friendships. He commented upon his presence at the meeting in Tacoma in December of 1934.

He gave a splendid tribute to his friend Jim Ramsey, who passed away in February of this year and said that Mrs. Ramsey had sent her greetings to the convention and her regrets at not being able to attend.

Mr. Boyce spoke of his visit to the Coulee Dam and what he believed it meant to the Pacific Northwest. He said his friend Bill Kelly had been good enough to take the time to drive him to a number of the pulp and paper mills where he had received very fine receptions.

Pacific Coast mills are very up-to-date and modern in every way, Mr. Boyce remarked. And he compared the 234-inch news machine at the Washington Pulp & Paper Corporation's mill in Port Angeles with the 48-inch machine he worked on years ago in Corinth, New York, remarking on the steady progress of the industry.

Mr. Boyce said he believed the Pacific Coast industry had a great future in both pulp and paper, but that the present paper production was as nothing compared with what would come. Before many years, Mr. Boyce predicted, the Coast would be making higher grades of bleached sulphite and sulphate papers in larger tonnage.

At the close of the banquet the orchestra began to play, the floor was cleared and the rest of the evening was devoted to dancing.

Reunion

An interesting sidelight of the superintendents convention was the meeting for the first time in thirty years of Andreas Christensen of the British Columbia Pulp & Paper Company, and Joseph Ryberg, superintendent of the St. Helens Pulp & Paper Company.

Both men worked as apprentices in the Mjondalen Cellulosefabrik mill at Mjondalen, Norway, thirty years back and hadn't seen each other since then.

Those Who Contributed Prizes

The following firms cooperated with the superintendents by contributing prizes, and General Chairman John E. Hassler expresses his appreciation to them for their assistance in making the meeting an enjoyable one.

J. E. Haseltine Company, General Rubber & Supply Co., Harris Supply Co., Alaska Junk Co., Marwood Limited, Marshall Wells Company.

Electric Steel Foundry Co., Columbia Steel Company, Peck Bros., Munnell & Sherrill Company, Crane Company, Coast Mfg. & Sales Company, Honeyman Hardware Company.

A. W. Davis Supply Company, Chain Belt Company, Simonds Saw & Steel Co., Oregon Brass Works, J. O. Ross Engineering Corp., The Sturdevant Company.

Ohio Knife Company, National Aniline & Chemical Co., Link Belt Company, Paper Makers Chemical Corp.

A Successful Meeting Doesn't Just Happen

Things run so smoothly at successful meetings such as this gathering of the superintendents that everything appears to merely happen. But back of this smoothness is months of hard work, attention to details by the chairmen and the committees.

The exceptionally large number attending this winter meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association at the Hotel Multnomah, Portland,

FRED BOYCE VISITS EVERETT

While on the Pacific Coast to attend the meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association held at Portland, December 4th and 5th, Fred C. Boyce, of Wausau, Wisconsin, founder and first president of the association, visited a number of pulp and paper mills to greet his many friends.

The above snapshot, one of the best taken of Mr. Boyce while he was on the Coast, was made in front of the office of the Pulp Division, Weyerhaeuser Timber Company at Everett, Washington.

Left to right is W. Norman Kelly, manager Longview mill, Pulp Division, Weyerhaeuser Timber Company; Robert B. Wolf, general manager, Pulp Division, Weyerhaeuser Timber Company; W. A. Kelly of Portland who accompanied Mr. Boyce on his visits to Pacific Coast mills; Fred C. Boyce; and, G. S. Brazeau, manager Everett mill, Pulp Division, Weyerhaeuser Timber Co.

While machine tender years ago at Palmer Falls, later the Corinth, New York mill of the International Paper Company, Fred Boyce gave a young fellow named R. B. Wolf his first job in a paper mill, as broke hustler.

GEORGE W. BROWN
Retiring Chairman

Oregon, December 4th and 5th, was no accident. They came because General Chairman John E. Hassler, together with the sub-committees and the officers of the Pacific Coast Division had performed effective publicity work.

Working with Mr. Hassler in making this meeting a success were: Don L. Shirley, who was in charge of hotel reservations and arrangements (Mr. Shirley is district manager in Portland for the Link-Belt Company). William A. Marshall was in charge of finances and registration, assisted by Miss Brownhill.

Mrs. Kenneth B. Hall arranged the luncheon and dinner menus. Her selections met with the approval and appreciation of everyone.

Mrs. John E. Hassler had charge of the ladies program, and she was assisted by Mrs. R. T. Petrie, Mrs. W. S. Hodges, Mrs. C. J. McAllister, Mrs. Carl Braun and Mrs. H. A. Des Marais.

The ladies complimented Mrs. Hassler on the very enjoyable program she had arranged.

Paul Keller, artist for the Oregon Journal, contributed to the large attendance by making interesting sketches for the advance publicity.

The following registered at the meeting:

W. A. Kelly, C. F. Gaiser, H. A. Des Marais, L. S. McCurdy, R. C. Onkels, C. V. Smith, R. E. Drane, H. R. Heuer, Andreas Christ.ansen, Geo A. Gladding.

John M. Carlson, A. H. Lundberg, H. E. Ostenson, H. K. Brooks, Jr., D. K. McBain, Wm. E. Foren, Carl Braun, G. W. Charters, T. H. Grant, G. H. McGregor.

Lars Bache-Wiig, J. D. Kaster, E. G. W. Cooper, A. P. Seibers, E. P. Stamm, R. W. Simeral, Jack Johnson, Ralph Reed, C. Sholderbrand, A. G. Natwick.

T. Knuth, Maurice Phelps, Jerome Janecek, G. W. Brown, A. S. Viger, E. A. Weber, A. D. Wood, V. L. Tipka, Dr. E. C. Lathrop, R. S. Wertheimer.

Leslie Anderson, T. H. Beaune, A. Zimmerman, Walter Grigsby, Ray Smith, Jim Walker, A. C. Duncan, R. P. Lungreen, J. E. Ryberg, R. W. Wilson.

W. R. Barber, Kenneth Hall, Foster Odom, E. Erickson, I. Jaatineu, F. P. Wilder, H. Hanson, Brian Shera, J. W. Martin, H. M. Danielson, James Nutter.

R. E. Chase, H. H. Townes, J. E. Hassler, R. T. Petrie, R. B. Hammond, Z. A. Wise, A. C. Dunham, W C. Marshall, E. E. Kertz, W. M. Osborne.

H. A Vernet, Earl G Thompson, J. F. Smith, C. J. McAllister, Fred C. Boyce, Tom J. Waltmon, Harry M. Jones, T. C. Roberts, H. O. Bing, B. R. Gardner.

R. C. Erchinger, Harlan Scott, Dan Charles, Tom Shields, G. F. Mitchell, L. K. Smith, F. W. McKenzie, Roy Carey, E. F. Clark, W. D. Jorres.

J. C. Lane, W. R. Gibson, L. H. Wear, J. V. B. Cox, Fred Alsop, Chas. Scott, J. W. Peckham, Kenneth Shibley, Don Shirley, Chas. M. Server.

Ray Smythe, Don Guild, Ed Gellenbeck, Ben Gellenbeck. H. H. Richmond, A. H. Hooker, Walter Hodges, Fred Nicholson, Fred Shaneman, Leonard McMaster, Philip E. Sullivan, Ned Menzies, C. H. Belvin, Ray Hanson, Wm. Prier.

JOHN E. HASSLER
Convention Chairman

LADIES ATTENDING THE CONVENTION

Mrs. J. S. Nutter, Mrs. R. E. Chase, Mrs. W. A. Kelly, Mrs. J. E. Hassler, Miss L. H. Brownhill, Mrs. C. F. Gaiser, Mrs. R. T. Petrie, Mrs. R. B. Hammond, Mrs. W. C. Marshall, Mrs. H. A. Des Marais.

Mrs. E. E. Kertz, Mrs. W. M. Osborne, Mrs. C. J. McAllister, Mrs. L. S. McCurdy, Mrs. T. J. Waltmon, Mrs. Alice Fisher, Mrs. Harlan Scott, Mrs. R. C. Onkels, Mrs. L. K. Smith, Mrs. F. C. McKenzie.

Mrs. Roy Carey, Mrs. E. F. Clark, Mrs. R. C. Erchinger, Mrs. W. R. Gibson, Mrs. R. E. Drane, Mrs. L. H Wear, Mrs. Fred Alsop, Mrs. Chas. Scott, Mrs. J. W. Peckham, Mrs. M. Miller.

Mrs. H. H. Richmond, Mrs. J. M. Carlson, Mrs. Rolfe Lundgreen, Mrs. Walter Hodges, Mrs. Strohm, Mrs. A. H. Lundberg, Mrs. Fred Shaneman, Mrs. H. E. Ostenson, Mrs. P. E. Sullivan, Mrs. H. R. Heuer.

Mrs. Helen Smither, Mrs. Jerome Janecek, Mrs. Chas. M. Server, Mrs. A. S. Viger, Mrs. Herald Lewers, Mrs. A. C. Duncan, Mrs. J. E. Ryberg, Mrs. R. Wilson, Mrs W. R. Barber, Mrs. B. Shera.

Mrs. Kenneth Hall, Mrs. M. Miller, Mrs. Sanis, Mrs. F. Odom, Mrs. Ned Menzies, Mrs. Wm. Foren, Mrs. Carl Braun, Mrs. G. E. Charters, Mrs. T. H. Grant, Mrs. C. H. Belvin.

Miss Cashnere, Miss Cox, Mrs. R. A. Simeral, Miss Lois Mastern, Mrs. Jack Johnson, Mrs. Cooper, Mrs. Don Shirley, Mrs. Ralph Reed, Mrs. C. Sholderbrand, Mrs. Ray C. Hanson, Mrs. A. G. Natwick, Mrs. Strohm, Mrs. Wm. Prier.

THE SUPERINTENDENTS' COSTUME PARTY

"No paper costume, no admittance," were convention chairman John Hassler's instructions to door guard Don L. Shirley at the Friday evening costume party.

The result was a rather remarkable exhibition of the versatility of paper. Some of the prize winners appear in this picture which was taken by the staff photographer for the Oregon Daily Journal and published through the Journal's courtesy.

Left to right, Mrs. R. T. Petrie, Mr. George W. Brown, Mrs. Jerome Janacek and Mr. R. T. Petrie.

INCREASE STOCK

At a meeting of the stockholders of the Pacific Coast Paper Mills at Bellingham, Washington, on November 16th the company's common stock was increased from 45,000 shares to 65,000 shares. The new stock will be issued in payment of accumulated dividends upon the preferred stock to October 1st, 1935, on the basis of one share of common for each share of preferred.

COHN TRANSFERRED TO CHICAGO

Nathan Cohn, Pacific Coast manager of Leeds & Northrup, makers of electrical instruments, has been transferred to Chicago effective January 1st, to be district manager of the Technical Division for the entire Middle West. Mr. Cohn left December 15th to take up his new duties after seven years of service on the Pacific Coast.

J. W. Robinson has been transferred from Birmingham, Alabama, to San Francisco to become district manager of the Leeds & Northrup Technical Division for the West Coast.

ST. REGIS STARTS OPERATIONS

On November 24th the St. Regis Kraft Company blew the first digester at the Tacoma mill and operations were actually under way. The first pulp was shipped November 27th.

This was the first pulp to be made in the mill since operations were suspended in the spring of 1932, and the resumption of production means much to the people of Tacoma in the way of increased employment and expenditures for supplies.

The first of the two new Swedish fan pulp dryers started on November 24th and operated smoothly. The second machine went into operation on December 2nd. By December 15th the entire pulp mill was up to its capacity production.

At present the St. Regis mill is producing unbleached kraft pulp as the new bleaching plant will not be completed until late in January. The mill will then bleach a part of the kraft pulp production. The large new flat screen room will be completed about December 31st.

About 250 men are employed in production at the St. Regis mill. The log breakdown plant and the chipping plant is operating on a two-shift basis.

ELLIS MOVES TO SHELTON

Jack Ellis of the Olympic Forest Products Company at Port Angeles, Washington, has recently been made plant engineer for the Rainier Pulp & Paper Company at Shelton, Washington, succeeding Vic Hanson, who has returned to the Lamb-Grays Harbor Company at Hoquiam.

COLUMBIA RIVER BLEACH PLANT TO START SOON

The new bleaching plant of the Columbia River Paper Mills at Vancouver, Washington, will begin operating the latter part of this month.

WALTON NIGHT SUPERINTENDENT

Len Walton has been made night superintendent o fthe Rainier Pulp & Paper Company's mill at Shelton, Washington.

McGREGOR TO ATTEND MEETING

George H. McGregor, technical director of the Pulp Division, Weyerhaeuser Timber Company, Longview, will go East in February to attend the national meeting of TAPPI at the Hotel Waldorf-Astoria in New York City. Mr. McGregor is vice-chairman of the Pacific Section of TAPPI.

ATWOOD NOW BOSS MACHINE TENDER

Leonard Atwood has been made a boss machine tender at the Rainier Pulp & Paper Company's mill in Shelton, succeeding Pete Anderson who resigned.

SPAULDING STARTS MACHINE

On December 3rd the newly erected drying machine in the sulphite pulp mill of the Spaulding Pulp & Paper Company at Newberg, Oregon, was turned over for the first time. It is now in regular production.

The machine, which produces sheet pulp, consists of a regular wet machine for forming the sheet and a dryer section of seventeen drying cylinders which Superintendent J. B. Wilt recently purchased in the Middle West.

The Spaulding mill is now in a position to supply customers with a sheet pulp as well as shredded pulp.

BELLINGHAM TO SURVEY WATER SOURCES

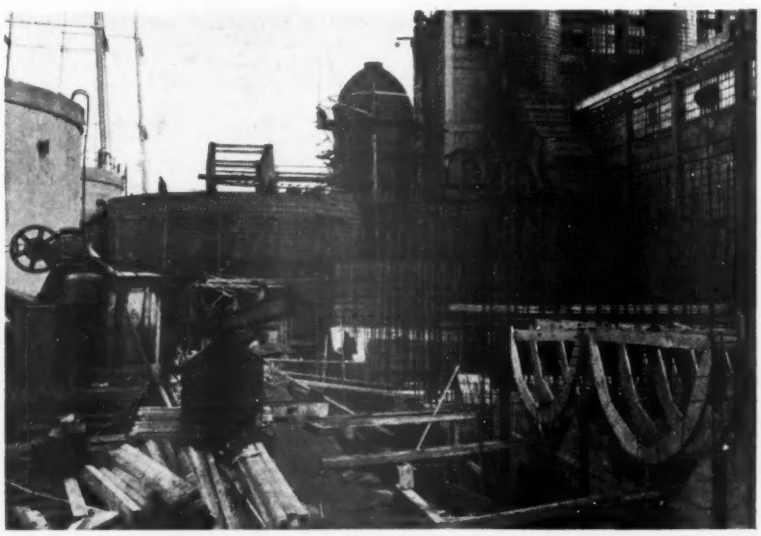
As a result of the application by the Puget Sound Pulp & Timber Company for a renewal of their 3,000,000 gallons per day water contract with a clause permitting them to use up to 10,000,000 gallons per day and their expressed desire for an option on 40,000,000 gallons per day, the City of Bellingham will shortly survey all available water sources to determine if the company's request can be satisfactorily met.

At present Bellingham's water system will carry a maximum of but 15,000,000 gallons of water per day for domestic and industrial purposes.

FINNISH TECHNICAL MAN VISITS COAST

During a week spent visiting Pacific Coast mills, Sven Hanson, technical manager of A. Ahlstrom Company of Warkaus, Finland, and E. Erickson of the Lagerloef Trading Company of New York, stopped in Portland to attend the meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association, December 4th and 5th.

Mr. Hanson is spending about a month in the United States. The Ahlstrom Company, of which he is the technical manager, manufactures news print.



GRAYS HARBOR CONSTRUCTION PROGRESSING

Construction is moving along steadily on the 50 tons per day addition to the bleached sulphite pulp mill of the Grays Harbor Pulp & Paper Company at Hoquiam, Washington.

When the above photographs were taken December 2nd, the erection of the 19 feet by 58 feet digester was nearly finished. The concrete building to house the digester is now under way. In the other picture forms for the concrete stock chests are shown with the digester in the background.

The new unit is expected to be ready for production about February 1st, 1937.

RAILROADS REDUCE RATE ON PULP TO NEW ENGLAND

To assist Pacific Coast pulp mills during the tieup of inter-coastal water shipping, Western railroads have obtained reduction on the all rail rate for wood pulp into Group A territory, which includes all of New England and almost all of the states of New York and Pennsylvania.

The new rate of 60 cents per hundred pounds ($12 per ton), on 80,000 pounds minimum shipments, became effective December 10th and will remain in operation until June 30th, 1937. If sufficient tonnage is developed the new rate may become permanent.

Formerly the rate into Group A territory was 70 cents per hundred ($14 per ton) on minimum shipments of 70,000 pounds.

The 45 cents per hundred all rail rate into Minnesota, Wisconsin and Illinois points continues. This rate also applies to certain points in Ohio such as Chillicothe.

The inter-coastal water rate on wood pulp at the time the marine strike tied up shipping, was $6 per ton to Atlantic ports. To this had to be added back haul charges to paper mills and various other costs such as warehousing and insurance.

WOODFIBRE TO MAKE BLEACHED SULPHITE

Having just completed a $400,000 improvement program at its Woodfibre and Port Alice mills, British Columbia Pulp & Paper Company has decided to spend an additional $500,000 on expansion designed to adapt its production to new market trends.

Recognizing the increased world demand for bleached pulp, the Woodfibre mill is being altered so that it will be able to produce this kind of pulp as well as the unbleached article which in the past has comprised its total output. The Port Alice mill is already equipped to manufacture bleached pulp, but the company foresees a big future for its sale and is planning its production policy accordingly.

"We feel that the present outlook justifies proceeding with an additional unit at Woodfibre," said President Lawrence Killam in making the announcement. "It will open up a big market now closed to us, and give us an opportunity to operate the plant steadily under varying market conditions."

Steam turbines for use with the existing boilers at Woodfibre have already been ordered. Plans for the whole installation are now under way and it is hoped to have the work completed by the end of next May. Contract for the installation has not yet been awarded.

Mr. Killam says that the market for pulp has been gradually improving for several months, although the pulp industry seldom feels the reaction of changing conditions as rapidly as the newsprint trade. B. C. Pulp & Paper Company is now selling in the United States, eastern Canada, Japan, China, Siam, India and England and thus meets world competition.

Scandinavian countries are still regarded as the chief obstacle to the expansion of markets for Northwest pulp in foreign markets and it was largely because of the invasion of the bleached pulp trade by Sweden that the Vantouver company decided to enter its bid, the belief being that British Columbia pulp, even though produced at higher cost, will be able to meet the Scandinavian product on a quality basis.

Although Mr. Killam is non-committal on the subject and indicates that nothing is being done in that direction now, it is understood that B. C. Pulp & Paper Company will ultimately be in a position to become an important factor in the production of rayon pulp, recent laboratory tests having shown that British Columbia hemlock may be effectively and economically used in the manufacture of this type of pulp.

B. C. Pulp's investment earlier in the year was chiefly concentrated on installation of the Chemipulp process, provision of a larger gas fan and additional cooling surfaces to cool the sulphur dioxide gases before absorption in the limestone towers, thereby obtaining a higher strength acid.

Water supply from Victoria Lake was augmented by the installation of three large pumps.

Hog fuel conveyor and a new storage system were established at Port Alice this year. As hog fuel, obtained chiefly from the Alberni-Pacific Lumber Company at Port Alberni and transported by barge to the pulp mill, is much cheaper than oil, the company is working out a plan to make greater use of it. As part of this process the air to the dutch ovens is being pre-heated. Hot air instead of cool is being blown into the burners, making it possible to reduce the ratio consumption of oil.

The company also built a 300-foot dock with a 600-foot conveyor, equipped with Link-Belt system, the return to storage being 400 feet long. A steel conveyor in the boiler room, 140 feet long, was also installed.

A new logging camp has also been opened up in a location nearer the mill. The shift was made from timber on the west arm of Queen Charlotte Sound, about 45 miles from the mill, to a point on the southeast arm. This move has resulted in the building of additional lodging accommodation for the woods crews, building of a log wharf and the laying out of a camp site and booming grounds.

The Port Alice and Woodfibre mills have a monthly capacity of about 3500 tons each.

Back of the Woodfibre development is recognition by Mr. Killam and other B. C. Pulp executives that bleached pulp will continue to hold a strong position in world markets. In 1929 Canadian bleached production was valued at $23,814,000 compared with $38,144,00 for unbleached, but the standing has been reversed since then, and while total sales have not been as high as in the pre-depression year, bleached sold to the value of $19,551,000 last year, compared with only $17,466,000 for unbleached.

The more significant fact lies in a comparison of production figures, however. Last year Canada produced 374,157 tons of bleached sulphite pulp, which is the all time high, and 40,000 tons more than in the previous year.

B. C. Pulp will sell nearly all its production in the foreign market as only a small percentage is used in Canada. A large amount of the exported pulp is used in the manufacture of rayon.

THE B. C. MARKET SITUATION

British Columbia pulp and newsprint mills have not been adversely affected so far by the maritime strike down the coast, although many of their shipments to consumers in the coast states have had to be diverted to the railroads.

Demand for newsprint in all markets has been so strong that even had shipments to the coast cities been interrupted there would have been no loss in sales. Other markets would have eagerly picked up any stock available.

Shortage in newsprint in certain cities most directly affected by the strike became so acute that bids as high as $70 a ton were made in some instances, according to officials of Powell River Company and Pacific Mills, Ltd. However, the B. C. mills were unable to take care of additional business, as they had their hands full meeting requirements of their regular customers.

An unusual spectacle was furnished on New Westminster's waterfront as a result of the shipping tieup in other ports by the arrival of a shipment of 2200 tons of pulp from Sweden. It was landed from the freighter Argentine as dock crews would not handle it in United States ports.

"The spot market for newsprint is already here," a B. C. newsprint executive told Pacific Pulp & Paper Industry. "The bidding of abnormally high prices for newsprint on special order was due to the strike, and cannot be accepted as representative of the general situation; but it may be taken as an indication of the narrow margin between supply and demand."

L. B. Palmer, general manager of the American Newspaper Publishers Association, takes the view that only a "skyrocket boom in advertising" above the 1929 level would bring about a genuine shortage of newsprint because many Canadian mills are ready to increase production when justified by orders.

Mr. Palmer points out that although newspaper advertising is sharply rising in volume, in October it reached only to a level slightly below the starting point of the 1929 boom, which saw a rise from 140,000,000 odd agate lines in January to more than 180,000,000 lines in October.

TAPPI PLANS PORTLAND DINNER MEETING JANUARY 19th

The next dinner meeting of the Pacific Section of TAPPI will be held at the Hotel Heathman, Portland, Oregon, on Tuesday evening, January 19th. The time is 6:30 p.m.

C. W. Morden of Portland, past chairman of the Pacific Section of TAPPI, is chairman of the meeting.

George H. McGregor, vice-chairman of the Pacific Section in charge of programs, states that the subject to be discussed will probably be "Pulp Washing," although the program was not definitely determined at the time this issue went to press.

The dinner will be held at 6:30 p.m. Chairman Morden urges everyone interested in the pulp and paper industry to attend.

On Thursday evening, February 4th, a TAPPI dinner meeting will be held in Vancouver, B. C., under the chairmanship of Andreas Christensen of the British Columbia Pulp & Paper Company. The program and the place where the dinner will be held will be announced in the January number of this journal.

SCHEDULED TAPPI MEETINGS

Pacific Section
Dinner Meetings

January 19th.....Portland, Oregon
February 4th.....Vancouver, B. C.
March 2nd.....Olympia, Washington
April 6th..Port Angeles, Washington

DEAN LEWIS VISITS PACIFIC COAST

Dr. Harry F. Lewis, dean of the Institute of Paper Chemistry of Appleton, Wisconsin, visited the Pacific Coast early in December.

Dean Lewis gave four talks while on the Pacific Coast before local sections of the American Chemical Society, under whose auspices his trip was made.

December 4th Dean Lewis spoke in Los Angeles, December 5th in Sacramento, December 7th in Portland and December 8th in Seattle.

His audiences in Portland and Seattle were made up of more than half pulp and paper men and his talks dealt with the nature of the chemical components of pulp fibers and the change of those components as a result of pulp and paper making operations.

He discussed what we know today of the chemical nature of cellulose and lignin, pentosans, etc. Dr. Lewis commented briefly on the importance and nature of the lignin membrane.

Informally, he spoke of the work at the Institute of Paper Chemistry, of which he is the head, as regards both teaching and research for the pulp and paper industry.

Dean Lewis spoke at Reed College in Portland before more than seventy-five persons and in Seattle at the New Washington Hotel before a group of more than fifty.

INCREASED EXPORTS OF FRENCH CIGARETTE PAPER TO THE UNITED STATES

Exports of cigarette paper from the Nantes consular district to the United States may set record figure this year. Shipments during the first 9 months totaled 9,648,000 pounds valued at $2,629,000, as against 7,448,000 pounds valued at $2,009,000 in the corresponding period of 1935. (Consul B. M. Hulley, Nantes.)

RAINIER LEADS IN SAFETY WORK

On December 1st David B. Davies, general manager of the Rainier Pulp & Paper Company of Shelton, Washington, released the following statement concerning Rainier's excellent safety record.

"The Rainier Pulp & Paper Company shows a steady decrease in the number of lost-time accidents and the amount of days lost due to accidents since the inception of the safety program on January 1, 1935.

"From September 1, 1934, to January 1, 1935, a period of four months prior to the beginning of the safety program, there were twenty lost time accidents, totaling 722 actual days lost. From January 1, 1935, to August 31, 1935, a period of eight months, there were seventeen lost-time accidents totaling 440 actual days lost. The total actual days lost for the fiscal year of 1935 was 1162.

"From the beginning of the fiscal year for 1936, starting from September 1, 1935, and ending August 30, 1936, a period of twelve months, we have had a total of 32 accidents, totaling 525 actual days lost.

"Due to the constant efforts of the men in charge of the Rainier Pulp & Paper Company, the safety committees and the entire rank and file of Rainier company employes, the hazards encountered in pulp mill work have been reduced to a minimum. The company spares no expense to make this plant a safe place for its people to work in. In this organization we have no room for people who will not work safely or who, by their carelessness, endanger their fellow workmen. We are not satisfied by our great improvement in safety, but are looking forward to the day when we can operate for a year at a time without one day being lost due to accidents.

"The management takes this opportunity to thank each and every employe of the Rainier Pulp and Paper Company for the splendid cooperation we have received in making this plant the safest pulp mill on the Pacific Coast. We solicit the continued cooperation of every employe to maintain this position and to improve our safety record in the coming year."

LAUCKS ESTABLISH COMPLETE MATERIALS TESTING LABORATORY

Of special interest to the pulp and paper industry of the West Coast is the recent establishment, close at hand, of a complete laboratory for physical testing by the Laucks Laboratories, Inc., of Seattle, Washington. This is the only institution of its kind west of Chicago equipped to handle this complete service.

For many years Laucks Laboratories, Inc., have been closely identified with construction and equipment in the pulp and paper industry, in its buildings, digesters, machinery, piping equipment, surge tanks, pen-stocks, etc., and this latest step is a new progressive extension of their dependable services.

In charge of this department is James L. Avis, a testing engineer and physical metallurgist of over 30 years intensive training and diversified experience, obtained not only in the Northwest but in the large industrial centers of Pennsylvania, Connecticut, Maryland, New York and Illinois. Mr. Avis for many years performed the testing for Lloyd's Register, the Bureau Veritas, the Imperial Munitions Board of Canada, the American Bureau of Shipping, United States Engineers and the U. S. Navy Yard at Bremerton, Washington.

This department determines the physical properties of all engineering materials of construction . . . their strength, ductility, hardness, etc., with complete reports as to their fitness for service desired. This embraces all the physical properties of all the metals and alloys, their composition, heat treatment and structure (with photo-micrographs) and complete descriptions of the latter. The department supervises and inspects, during production in rolling mills, forge plants, foundries, fabricating plants, manufacturing plants and as resident engineers on field construction.

Of particular interest is the research the department conducts in the causes of failure in chain, cable, axles and machinery parts. This latter type of work is a specialty of the department and is invaluable in cases involving civil or admiralty litigation, to say nothing of its prevention of failure.

Failures do occur . . . sometimes of a minor character but sometimes of such a nature as to cause loss of life or limb and serious monetary loss. The result is that suits are frequently brought. By determining the exact cause of failure it is possible to bring before a court exact scientific findings uninfluenced by prejudice or the oratory . . . and with the happy result of placing the blame, if any, exactly where that blame belongs.

Pulp and paper manufacturers will possibly be interested in knowing that Laucks Laboratories, Inc., at Seattle and Vancouver are likewise offering a consulting and advisory service to manufacturers, designing engineers, machine shops, forge and fabricating plants as well as ferrous and non-ferrous foundries.

THE EFFECT OF CLEAR WATER ON THE MANUFACTURE OF PULP AND PAPER

By KENNETH SHIBLEY*

It is somewhat presumptous for the speaker to address a group of pulp and paper mill superintendents on the effect of clean water on the manufacture of a product to which they have devoted most of their adult lives. We are sure that you all know that whatever knowledge of the pulp and paper business we may have absorbed during the past 14 years, has been gained through our efforts to assist in the improvement in quality of the water supplies used in your mills.

Had we been asked to discourse upon HOW to obtain a clean water, that would have been easy; but to attempt to point out in just what ways a clean water supply results in effecting improvement in your mill processes, is something else again. We do know, however, that clean water has resulted in tremendous improvement in the grades of pulp and paper made here on the Pacific Coast and it is not likely we shall soon see a lowering of those standards of quality. We will have attained our object in presenting these brief views, if they will serve to bring forth in the discussions during this afternoon's meeting the "why" and the "how" and the extent, to which clean water has helped improve pulp and paper quality.

We observe that the men charged with the production of a particular pulp or paper product strive continually to improve it, and usually at lower costs. Clean water helps them do this. The wood from which all pulp is made is floated through the mill in a stream of water—first thick, then thin, and so on. Water is used in every stage of the conversion process from beginning to end. Since, therefore, water is so extensively a part of a process or processes that are in themselves complex indeed, we observe that the mill superintendent has always striven to improve its quality in the hope that thereby he may eliminate one of the many variables he continuously faces.

We observe also that in every case where a mill water supply is cleaned up, an improvement in the quality of the product has been made.

The net effect, then, of an unvarying, clean mill water supply is not only to improve the quality of product and reduce costs, but to remove one cause of much uncertainty in the manufacturing process. We have no doubt that when clean water is used, many of the other manufacturing problems become simplified, more easily understood, and solved. In any event, as we look back over the past few years, it appears that the rapid improvement in product has been coincident, among other factors, with a corresponding improvement in the quality of water used.

*Shibley Company, Seattle, Washington. Presented at the meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association, Portland, Oregon, December 4th and 5th, 1936.

The title of this paper should, perhaps, have read—"The Effect of Unclean Water on the Manufacture of Pulp and Paper," for the reason that we shall attempt to set forth briefly and in a general way, as we have observed them, the effects of the numerous and various kinds of impurities, present in natural waters, that affect deleteriously the various processes and products involved in the manufacture of soda, sulphite, kraft, rayon and other cellulose pulps and papers.

Defining "Clean Water"

First let us state, if we can, the definition of "clean water." Such a definition must be broad enough to cover every use of water in pulp and paper manufacture. It should be stated then that a clean water is one in which dissolved color, inorganic turbidity, organic matter, bacterial life, moulds, dissolved salts or other impurities are present to such an extent that they will **not** interfere with or complicate the processes in which the water is to be used. A water supply which will meet these specifications is seldom if ever found in nature. There are, however, some supplies, particularly here in our Pacific Northwest, that come pretty close to it, and fortunately those supplies occur in such volumes that they are sufficiently larger to provide the needs of some of our largest mills. In general, too, it may be said that practically all of the water supplies for our mills are of exceptionally high quality, when compared with those available to mills elsewhere in the United States. Except in one or two cases our waters are exceptionally soft—a boon that we are, perhaps, too prone to forget. Industrial wastes and domestic sewage are seldom present in sufficient qualities to give any particular concern. And water supplies are usually available sufficiently close to mill sites—near tidewater and rail facilities—to bring their primary costs well within reasonable limits.

It may also be said that a water supply which is entirely satisfactory from the standpoint of human consumption, may or may not be all that is required for mill uses. With the possible exception, of tastes and odors which often prove a nightmare to the operator of domestic water systems, but are of no particular consequence to us, a domestic supply may contain enough impurities, such as silt, organic matter, non-pathogenic bacteria, dissolved color, etc., as to be particularly objectionable in pulp and paper manufacture. The speaker knows of no mill water supply, which when properly treated has ever failed to receive a Class "A" rating from State Boards of Health and the United States Public Health Service. Literally then, the satisfactory mill water supply should be, and is, a better one than that which we drink.

From the standpoint of the dirt, dissolved color, etc., in water, their adverse effect is understandable when we realize that for each volume of pulp or paper the equivalent volume of fresh water used in manufacture will range from 450 to over 700. Cellulose fibres form the best of filtering materials and quickly pick up foreign matter from the water; unless the water is very low in fine suspended matter, the concentration in a single unit of finished product may be very great. Unless the water used fairly sparkles in clarity the amount of extraneous matter brought into the pulp may be large.

Aside from lowering brightness, suspended silt, fine sand, etc. materially reduce strength. The speaker knows of one case of a light weight sheet of kraft, there was a strength loss of nearly 50% from that expected, due solely to using unfiltered water wherein the suspended inorganic turbidity exceeded 1200 p.p.m.

The presence of dissolved color or vegetable stain and its effect on bleaching operations is important. Generally speaking if dissolved color is not over 10 on the U. S. G. S. Scale, it is acceptable; but most superintendents prefer it 5, or less. Actually water for bleach washing operations should be of zero color.

Hemlock Requires Clean Water

Western hemlock contains appreciable amounts of iron, tannates, gallates, etc. The extensive use of this wood for pulp manufacture is, in our opinion, one of the reasons why clean, clear colorless water is a prime necessity. Chemical pulps made from spruce, for instance, as compared with those made from hemlock are normally brighter, but we have observed that with hemlock and using a water supply that does not add contamination, all other things being equal, a bright pulp also results. If the water supply is not clean this may not be so. In mechanical pulps—news print—it is of particular importance that the water supply be free from color, iron or acid, for when these are added to hemlock ground wood stock via the water supply, a pronounced darkening of the product usually results. In two well known cases in our experience, complete purification and sterilization of the mill water supply which comes in contact with the stock, has vastly improved the product and resulted in lowered operating costs in many directions.

Avoiding Iron

We are all familiar with the extent to which iron piping has been superceded by wood, copper, etc.—solely for the purpose of preventing iron rust contaminating white water and stock. The presence of iron in any mill water supply is of concern. The lower limits tolerable varies, but we believe that anything in excess of 0.02 p.p.m. may be objectionable. Iron and manganese in water will discolor pulp in the bleaching operation and cause yellowing of paper. These same elements

seriously interfere with dye stuffs. Water for washing sulphite pulp for rayon manufacture, must be extremely low in iron, otherwise, among other things, it will not properly take dyes.

Most of our Northwest surface water supplies are almost entirely free from iron, except a few derived from streams on the coastal plains in Southwest Washington and in Oregon. Practically every well supply west of the Cascades has iron present in objectionable quantities; so even though ground water supplies, believed to extensively exist in certain localities in this state, may become available, the cost of treating plants and treatment will probably be greater than filter plants necessary for waters derived from streams and lakes.

The problem of iron removal is always a bothersome one. Even with perfect filter plant control, occasionally small amounts will get through and into the mill causing much trouble. We speak of the iron problem thus, for the reason that any mill—which has, or is considering a water supply, in which iron is known to be present—has a real problem confronting it. Iron or manganese are the real trouble makers in the water business end of a pulp or paper mill.

Clean Water Saves Felts and Wires

The removal of fine sand, silt and other suspended matters by filtration often effect indirect savings in wire and felt life that frequently offset, or nearly so, the total costs of treatment. In a newsprint mill with which the speaker is familiar, the wire life per ton of paper before purification and after, showed a reduction in cost that, at times of bad water, actually covered the total cost of water purification. In a board mill where turbid glacial water was used, the tiny sharp particles of sand cut felt fibres within the felt, causing tears and breaks that proved very costly. A new clean supply ended the trouble. It is generally agreed, we believe, that savings in wire and felt life due to clean water is quite appreciable.

Clean water, by keeping out silt and slime, prevents the filling of felts with foreign matter, resulting in better drainage and longer felt life.

Where dyestuffs are added for the coloring of papers, the constance and uniformity of quality of the water supply is of utmost importance. Dissolved organic colors, low or variable pH, in fact anything about the water that causes a change of water conditions, may upset the delicate balance that is almost sure to produce unsatisfactory color effects in the sheet.

Bleached Kraft

Clean water free from color is essential in the production of quality bleached kraft pulps. In the cooking of kraft the sulphides present combine with tannins in the wood to produce color bodies generally called phlobotannins. Washing with clean water in closed vessels as soon as possible after cooking is effective in removing many of the phlobotannin color bodies, thereby simplifying the bleaching process.

After bleaching clean wash water is necessary to quickly remove the dark colored bleach consuming extract.

In other words, in making bleached kraft pulps the wash water serves as a color removing vehicle. Dirty water aggravates the problem of bleaching kraft by contributing color instead of removing it.

Slime

The publications of your own association, and those of TAPPI contain voluminous reports and discussions on our old friend, pulp and paper mill slime. The problem is most complex and even today not too well understood. Much valuable work has been done and is continuing to be performed over a wide front, looking toward its control and eradication. It is largely a problem to be solved within the mill itself, but one thing is certain and sure: if the fresh water supply is clear, colorless and 100% free from all bacterial forms, moulds, fungi, etc., as it may be by adequate pre-treatment, filtration and sterilization, the intensity or extent of slime occurrence in the mill is materially reduced. It is graifying to observe that in conjunction with the operation of adequate water filtration plants at nearly all the mills in this area, the use of chloramines (chlorine and ammonia) has and is providing water supplies that are well nigh perfect, from every standpoint.

Clean Boiler Water Essential

Last but not least, we have the problem of providing clean, clear, non-scale forming water for the boiler house. Again, we are fortunate that the water supplies with which we have to deal are relatively soft. They are so soft in fact that ordinary methods of softening outside the boilers, in nearly all cases are not warranted. Both calcium and magnesium are low, rarely totaling 24 p.p.m. Silica is relatively high, and we have formed as a result, a crystalline calcium silicate scale that is troublesome indeed. Fortunately though, a sure safe method for controlling this scale is available and is now being effectively used in over 20 boiler plants in pulp and paper mills in the Pacific Northwest. We never cease to admire the job being done in one large plant operating three 1420-h.p. boilers, in which the total daily evaporation is over 6,000,000 lbs. The demand for process steam is large and over four million pounds of raw water make-up containing about 16 p.p.m. of calcium is required per day. Yet with internal treatment only, to prevent scale, corrosion, and to maintain the proper sulphate alkalinity ratios as required by the A.S.M.E. Code, this plant has not had a boiler off the line for months and there are no burned out tubes or other troubles. Clean water, chemically, makes this performance possible, and to no small degre reflects satisfactory mill operation.

Changed Attitude Toward Water

Twenty-five years ago about the only specification for a mill water supply was that it must be adequate and wet. Most of the year there was little complaint about quality, although kicks were plentiful enough when the creek got muddy. Usually fine screening to remove limbs, twigs, leaves, pine needles and grit chambers to settle out the coarser sand particles was good enough.

The first filter plant built in a paper mill here, was started in the summer of 1923. Since that time more than 20 mills resort to partial or complete purification of their water supplies. The cost of such purification ranges from 15c to 60c per ton of product. More than 250 million gallons per day of installed filter capacity is now in use, in our pulp and paper mills here in the Pacific Northwest.

"THE STORY OF NEWS PRINT PAPER"

This is the title of a very interesting and instructive book just published by the News Print Service Bureau of 342 Madison Avenue, New York City.

The series of advertisements which appeared during the current year in Editor & Publisher are reproduced together with considerable additional editorial material. The advertisements alone give a clear picture of the news print industry. Together with the material which Mr. R. S. Kellogg, secretary of the Bureau, has added, the combination makes a reference volume of great value on the subject of news print.

The book has been prepared especially for the purpose of giving authoritative information upon the manufacture of news print paper for the use of newspaper publishers, librarians, students in journalism, forestry and economics, school teachers and others who frequently inquire for information upon the subject.

The entire undertaking was made possible by a few members of the Bureau who generously supplied the funds therefor. It will be noted, however, that nowhere in the book is there any mention of any individual or any company, so that it may be used freely by the entire industry.

The first edition of 2,500 copies has been exhausted and a second edition of 2,000 copies is now available. Single copies sell for $1. In lots of 25 the cost is 75 cents each and in lots of 50 copies or more the book sells for 50 cents per copy. Copies may be obtained directly rom the News Print Service Bureau.

The editorial material was prepared and written by Mr. Kellogg and the art work was done by Mrs. Kellogg (Janet Reid Kellogg).

SCANKRAFT ASSOCIATION FURTHER INCREASES PRICES AND AGREES TO 4 YEAR EXTENSION OF ASSOCIATION

The "Scankraft" association held a meeting in Stockholm on October 27 and 28 at which a further increase in price quotations for certain markets was decided upon. These immediate price increases are announced for the following markets:

By 10 shillings per metric ton (2,204.6 pounds equals 1 metric ton) in South Africa, Argentina, Brazil, Uruguay, British and Dutch Indies and China; and 20 cents per 100 pounds for the Central American markets.

Of more far-reaching importance than these immediate price increases is the announcement of another decision reached at this meeting to extend the present "Scankraft" association working agreement by a period of 4 years, or until the end of 1940.

The "Scankraft" association, or cartel of kraft paper producers in the Scandinavian and Baltic states, was originally organized in 1932 and since that time the agreement has been extended each year for annual periods only. The current unanimous decision in favor of a 4-year extension of the agreement beyond the end of the present year illustrates the intention of producers to maintain the stabilizing conditions which have resulted in the kraft paper market through the efforts of the association and reflects satisfaction with the operation of the association under the present basis of participation in the agreement.

PROTECTION AGAINST FRAUD

Safety Paper Made on the Pacific Coast Has Developed a Broad Market

Did you ever try to alter a bank check? We hope not, but if you did, you probably didn't get away with it, if the check was printed on "safety paper".

Safety paper is just what its name implies—safe from fraudulent alterations. It is, essentially, a sensitized paper that is so changed by any attempted alteration by acid, eraser, knife or other devises, that the alteration immediately becomes obvious to anyone. It is used wherever a check, signature, certificate, license, or any important document must be protected.

Here on the Pacific Coast we have a converter specializing in this product, the largest concern of its kind in the West, and one of only two in this section. It is the Pacific Safety Paper Mills of Los Angeles.

Most of the base paper stock used by the company is manufactured on the Pacific Coast, the majority being sulphite bond produced to specification at Grays Harbor. The remainder of the stock is specialty paper made in other sections, such as rag content bond.

The sensitizing process is a simple one, but the secret is in the exact methods used and the formulae for the sensitizing dye. As a result, few, if any, safety paper mills in the country allow visitors in their plant, to which the Los Angeles company is no exception.

The process consists of putting the paper through a bath of color dye and then, while still wet, through rollers which imprint the design. No ink is used on the rollers, the design being put on by action of the rollers, which impregnate the paper fibres more heavily with the dye where the design exists, than on the rest of the paper. The design appears to be a darker coolr than the rest, but actually is just a stronger shade of the same color.

Eight standard colors are oroduced, but the plant can make as many as 600 different colors if desired.

The paper comes from the rollers practically dry, the sheets are inspected, wrapped, and are ready for shipment.

S. S. Kauffman heads the Pacific Safety Paper Mills as president, with Louis Sloss as vice president. Walter Burroughs is manager and Jack Cote is manager of sales. Walter Steege is plant superintendent.

The company's production furnishes stock for an enormous number of checks and similar forms. It is estimated that the paper converted during a year would provide more than a billion checks. The market for the product extends all over the Pacific Coast, east to Chicago and west to Hawaii.

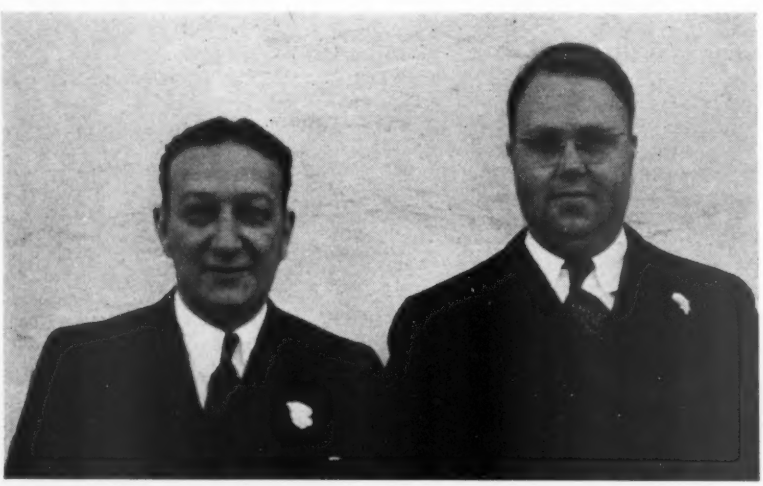
The two main types of paper produced are "Pacific Safety Paper," which carries a patented design background, and another brand, "Par Safety Paper," which has a straight line background. Both are of the same quality, the design being the only difference between them. They also manufacture a rag content safety paper under the name "President Safety Paper," for permanent records, county and state warrants, letters of credit, etc.

Some of the most interesting papers made are those carrying special design backgrounds. These are produced for various firms, using special design machinery or rolls for paper carrying the client's trade mark, medallion or other mark of identity. Some very beautiful effects are achieved by the use of pictures of the concern's buildings or some other individual mark which add a touch of dignity and prestige to the firm's checks.

Still another form is safety paper carrying an over-all design in which the wording is continuously repeated, for use in coupon books, tickets, etc.

The business uses of safety paper are many and varied. Banks use it for checks of all kinds, notes, drafts and letters of credit. It is used by air lines, railroads, bus lines and steamship operators for tickets, as well as for tickets for sporting events and the like. Corporations find many purposes for which safety paper is ideal, for pay checks, trade acceptances, deposit certificates, reecipts and contracts. Insurance companies, doctors, hotel, and many others have special uses for it. And of course the municipal, county and state governments use it extensively for licenses, bonds, warrants and all kinds of permanent records.

The Pacific Safety Paper Mills sells practically every large bank on the Pacific Coast, so it's likely some checks printed on its stock will be passing through your hands. If you haven't done it before, take a good look at the paper. But if you want to test its safety, better use a blank check. Try an eraser or a knife blade or a drop of ink eradicator, and you'll find out why.



On the left, Jack Cote, sales manager, and on the right, Walter Burroughs, manager, of the Pacific Safety Paper Mills of Los Angeles, California.

SHERMAN ELECTED TO LEGISLATURE

John Sherman of Port Angeles, vice-president of the International Brotherhood of Pulp, Sulphite & Paper Mill Workers, was elected to the Washington State legislature, house of representatives, in the November election by the largest vote of any candidate in Clallam County.

COOPER NOW PIPE SHOP FOREMAN

George Cooper, formerly in charge of digester maintenance for the Rainier Pulp & Paper Company at Shelton, has been placed in charge of the pipe shop as foreman.

NEW OUTLETS IN GERMANY FOR CHEMICAL WOOD PULP

The chemical division of Germany's wood pulp industry has assumed a new significance in connection with the ambitious plans for textile self-sufficiency based on staple fiber and rayon production, which in turn relies on sulphite pulp as a basic raw material. Important readjustments have been made by the chemical pulp mills, including the construction of new plants in order to meet the rapidly expanding demand on the part of the textile industry.

The 1936 program provides for production of 70,000 metric tons of pulped "Zellwolle" (which is the new term for spun rayon), with prospects for future expansion up to the point of supplying most of the German textile raw material requirements. It is estimated that the quantity of spun rayon scheduled this year involves consumption of 84,000 tons of sulphite pulp. While this amount is not imposing when compared with the total German output of 1,240,000 tons in 1935, it does represent a substantial addition to the production program of the Zellstoffabrik Waldhof concern, in which the production of a special grade of sulphite pulp for the rayon industry centers.

Another important outlet for chemical pulp created by the economic conditions in Germany is the explosives industry. The actual production of nitrocellulose in Germany is unknown, but is estimated to be considerable. There is no doubt that the 1936 figures for chemical pulp will show a striking increase over 1935, especially since the sulphate industry is also involved in a vigorous expansion program. (American Consulate General, Frankfort.)

ADVANCEMENT IN KRAFT PULP BLEACHING

By BRIAN SHERA*

The enlargement of the kraft pulp industry in the last year or so is of special interest to all who are directly or indirectly associated with the manufacture of pulp and paper. Announcement of the proposed construction of kraft mills in the South costing approximately fifty million dollars reveals the increasing usage of this type of pulp. Although the larger portion of the production will be in the form of kraft wrapping paper, bags, and liner board; the newer utilization of kraft for bleached specialties, will probably be important. Three of the new mills plan the production of bleached and semi-bleached pulps.

The growth of the kraft industry is not confined to the South alone. Several of the older mills in the central part of the country are improving the quality of their kraft pulps and extending their production in the form of bleached papers. Several new mills have been built recently in Scandinavian countries, especially in Finland, for the manufacture of the strong and the bleached kraft pulps. The Pacific Northwest has experienced continued growth in the production of kraft. A few years ago when the pulp and paper industry was severely curtailed, the Pacific Coast kraft paper mills operated regularly, and actually increased production. Of interest to us in the Northwest is the reopening of two kraft mills which had suspended operations. One of the reopening mills will bleach a large part of its output.

Several new kraft pulp mills will undoubtedly locate in the Pacific Northwest. Douglas fir waste from numerous tidewater sawmills will furnish an abundance of cheap raw material. The kraft pulp produced from Douglas fir has characteristically long fibres, making it most suitable for the manufacture of fibre shipping cases and kindred articles requiring exceptional strength. Douglas fir properly cooked and bleached experimentally yields a finished product of good strength and appearance. Research work expended on the utilization of Douglas fir for semi-bleached and bleached pulps will undoubtedly bear fruitful results. The highland stands of White Fir are also suitable for the production of high grade kraft pulps.

Western hemlock properly cooked for bleaching gives a pulp which is relatively easy to bleach. Multi-stage bleaching produces a strong white pulp. Authorities on pulp woods claim that Western hemlock is especially suited for the manufacture of the finer grades of bleached kraft. The latter apparently will have particular advantages when used in the higher grades of paper, and as a source of cellulose for the chemical industry.

*Pennsylvania Salt Manufacturing Company of Washington, Tacoma, Washington. Presented at the meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents Association, Portland, Oregon, December 4th and 5th, 1936.

A brief outline of the origin and growth of this particular branch of the pulp and paper industry is necessary to understand the present developments. The soda process of cooking required the use of soda ash and experiments were conducted to find cheaper chemicals with which to conduct alkaline cooking. In 1884, C. F. Dahl introduced a process in Europe utilizing a cheaper reagent, Sodium Sulphate; which gave the process its name. The Scandinavian countries found wide use for this process, as it offered a method for profitable use of sawmill refuse and waste wood. The industry flourished, and these countries established a leadership in the production of this pulp, which they still enjoy. In fact, kraft, the more common name for this pulp, is derived from the Swedish word for "strength," one of its characteristics.

The kraft industry was slow in starting in North America, the first mill being built in Canada in 1907, but the rapid growth since has compensated for this handicap. From an estimated yearly production capacity of 7500 in 1908 and 400,000 tons in 1918, the actual United States production increased to 410,000 tons in 1925 and 1,415,000 tons in 1935 —showing an increase of 350% in the last ten years. The estimated United States kraft pulp consumption shows 772,000 tons in 1925 and 2,026,000 tons in 1935, or practically a three-fold increase in the last decade. In the same era, the importations of kraft pulp, mainly from Sweden, doubled from 275,000 tons to 550,000 tons.

The estimated 1935 production of bleached kraft pulp in the United States was 168,000 tons, and it can be expected to be doubled within the next year. An indication of the expanding use of this pulp may be gathered from the importations from foreign countries.

1932	23,000 tons
1933	36,000 tons
1934	48,000 tons
1935	75,000 tons

The preceding statistics indicate a phenomenal growth in the use of bleached kraft pulp, and undoubtedly in the next decade the increase will be one without parallel. The mechanics of bleaching kraft pulps are now relatively well-known, and the hesitancy in entering this field of production is being replaced by confidence, as exhibited by plans for new mills whose entire output is to be bleached. In the last year at least a score of mills throughout the country have either earnestly or superficially attempted to bleach some of their production. Some mills have achieved excellent and profitable results. **Other mills in the sulphite and kraft industries should keep well informed of the changing situation, as we now stand on the threshold of developments that may adversely affect present profitable operations.**

Kraft Pulp Bleaching

The large tonnage of bleached and semi-bleached Kraft pulp was not produced at various points throughout the world without serious study and experimentation leading to the establishment of basic methods of treatment. The sulphite industry passed from the harsh rudimentary method of treating hard cooked pulps with bleaching powder solutions to the refinements of the cooking and bleaching processes. In the cooking process such improvements as heat accumulation, indirect cooking and recirculation of cooking acids were introduced—and in the bleaching process, direct chlorination, causticizing, and multiple stage bleaching methods were added. All lead toward the production of a stronger, purer, and whiter pulp.

The experience learned in the bleaching of sulphite can well be applied in the bleaching of kraft. The principle of the operation is the same, namely the removal of fibre encrusting lignins and color bodies. The lignin removal is relatively the same, except for the larger quantity usually encountered in kraft pulps, which may vary from 50% to 100% more than a sulphite pulp properly cooked for bleaching. The essential difference in the bleaching of sulphite and kraft pulps lies in the color bodies found in the latter pulp which present the principal difficulty in attaining high white colors without serious physical and chemical degradation.

The sulphides present in the kraft cooking process combine with tannins in the wood and form color bodies generally called phlobotannins. The degree of formation of these is greatly dependent on the sulphidity of the cooking liquor. Knowledge of the nature of phlobotannins is necessary in order to regulate the cooking and bleaching processes. They are similar to sulphur dyes and change color in acid and alkaline solutions from yellow to brown. In the digester the pulp

is yellow, the shade depending upon the sulphur content—but upon becoming exposed to the air, it assumes the characteristic brown color of kraft pulp. This is due to the oxidation of the phlobotannins which readily combine with atmospheric oxygen or dissolved oxygen in the wash water. These oxidized color bodies are the main source of difficulty and expense in bleaching.

It is found that caustic alkalies dissolve phlobotannins and thus make possible the employment of extraction processes to remove these compounds before exposure to oxidizing conditions. A simpler method, also quite effective, is to begin washing as soon as possible in closed vessels. The production of a light colored pulp, low in phlobotannins, has a dual value. It may be used unbleached for the manufacture of special grades of paper, and it greatly simplifies and reduces costs in bleaching. The cooking of the pulp should be regulated with a view to the product desired. Kraft pulp not to be bleached may be cooked in one to two hours at high temperature with the high sulphide content acting as a buffer—whereas, an easy bleaching pulp must be cooked at lower temperatures for a period of three or four hours with a liquor of low sulphidity.

Semi-Bleached Kraft Pulps

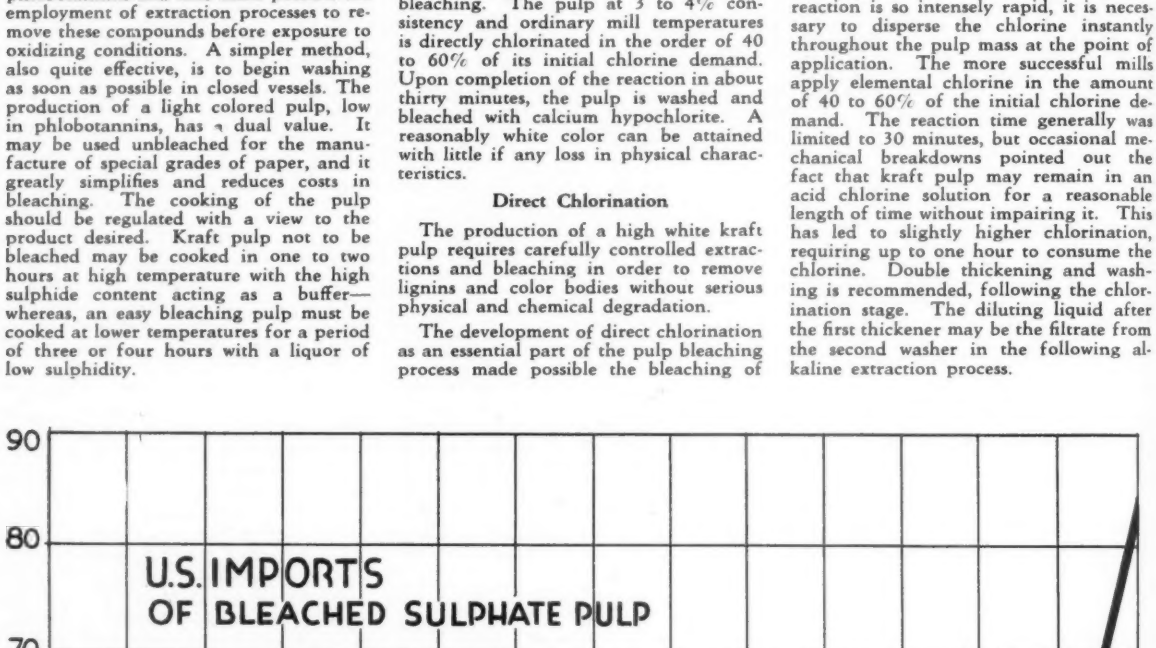
A semi-bleached pulp retaining all of its characteristics, can be easily produced by one stage bleaching. This may be conducted in beaters, Bellmers, or moderate high density bleaching engines. A thorough washing is necessary.

A higher grade semi-bleached pulp can be produced with a saving in chemicals by a two stage bleaching process consisting of chlorination and hypochlorite bleaching. The pulp at 3 to 4% consistency and ordinary mill temperatures is directly chlorinated in the order of 40 to 60% of its initial chlorine demand. Upon completion of the reaction in about thirty minutes, the pulp is washed and bleached with calcium hypochlorite. A reasonably white color can be attained with little if any loss in physical characteristics.

Direct Chlorination

The production of a high white kraft pulp requires carefully controlled extractions and bleaching in order to remove lignins and color bodies without serious physical and chemical degradation.

The development of direct chlorination as an essential part of the pulp bleaching process made possible the bleaching of kraft pulps to a high whiteness with only slight impairment of the natural characteristics. Direct chlorination is the first step in the bleaching of kraft pulp. There are several methods of applying chlorine gas or chlorine water to the pulp. The batch and continuous methods of chlorination under close supervision should obtain equal results. The pulp at mill temperature and 3 to 4% consistency is circulated past the point of chlorine application. Since the chlorination reaction is so intensely rapid, it is necessary to disperse the chlorine instantly throughout the pulp mass at the point of application. The more successful mills apply elemental chlorine in the amount of 40 to 60% of the initial chlorine demand. The reaction time generally was limited to 30 minutes, but occasional mechanical breakdowns pointed out the fact that kraft pulp may remain in an acid chlorine solution for a reasonable length of time without impairing it. This has led to slightly higher chlorination, requiring up to one hour to consume the chlorine. Double thickening and washing is recommended, following the chlorination stage. The diluting liquid after the first thickener may be the filtrate from the second washer in the following alkaline extraction process.



Extraction Processes

The chlorination treatment of kraft pulp renders the coloring matter soluble in caustic alkalies. The oxidized phlobotannins, after chlorination, are soluble in strong alkalies, but not particularly in solutions of alkaline earth metals. In fact, there is a reaction between the phlobotannins and the latter group of alkalies rendering some insoluble compounds, which precipitate upon the fibres and add to the difficulty of attaining a high white color. Caustic soda should be used, but lime should not be used in the extraction of the color bodies following chlorination.

Sodium sulphide in small amounts added to the caustic soda did not prove of any additional value in color extraction or reduction of bleachability. Several other reagents were used, such as oxalic acid, sodium sulphite, and sodium bisulphite. The color, instead of becoming a red brown such as with alkaline treatments, changes to various degrees of muddy yellow and yellowish green. The alkalies gave a much greater reduction in the bleachability with the same strength of reagent, time, and temperature.

In commercial practice caustic soda is found to be the most effective and economical color extracting reagent. The pulp consistency temperature, time, and quantity of chemical treatment has a wide variation, depending upon the final product desired. For paper grade bleached pulps, the consistency will be from 3 to 8%; the temperature 50° C.; the time of extraction 45 to 60 minutes; with an application of 1½ to 3% caustic soda on the weight of the pulp. For special high grade pulps the treatment will be about one hour at 110° C. with higher density and more caustic soda. Double thickening and washing should follow in order to remove as far as possible the dark-colored bleach consuming extract. The effluent from the second washer may be used to dilute the pulp from the first thickener following the chlorination stage. Caustic extraction may be carried out by batches or continuously as desired.

Calcium Hypochlorite Bleaching

The pulp, upon reaching the actual bleaching stage, should have experienced a reduction in the bleachability of at least 65 to 75%. A good white color, better than that of clear unbleached sulphite, can be obtained by bleaching with calcium hypochlorite in one stage. The consistency may vary from 6 to 10%; the temperature from 80 to 100° F.; and the time three to five hours. A good appearing strong pulp will result, which will lend itself to the production of delicate color shades in paper manufacture. This stage should be carried out by the batch system in order to insure good control of the bleaching reaction.

In the production of high white kraft pulps for paper or chemical uses care has to be exercised in order to retain the physical strength and produce a high alpha-cellulose content pulp. Experimental studies and plant production have pointed out that strong white pulp cannot be produced without considerable loss of strength if the final bleaching stage requires 1% or over of available chlorine in the form of hypochlorite. The chlorination, causticizing, and prior bleaching stages will therefore have to be carried out in a manner to produce a pulp of very low bleachability, requiring only a super-bleach at the end to produce the required color.

The usual method to accomplish this after the causticizing is to subject the pulp to sufficient bleach liquor to carry the bleaching within 90 to 95% of completion. The temperature will vary from 70 to 90° F.; the time from two to three hours; and the density from 8 to 12%. Experimentally, higher density bleaching than this showed serious effects on the pulp.

The first bleaching stage is sometimes carried out continuously, but the advantages in producing a uniformly treated pulp for the following super-bleach lie entirely with the batch methods of bleaching, due to the absolute control over time and temperature and addition of chemicals.

After dumping and washing the pulp is given the super-bleach at 5 to 6% density in bleaching engines of the Bellmer type, employing calcium or sodium hypochlorite. The temperature will vary from 70 to 80° F., and the time required for the bleaching reaction is from two to three hours. This stage must be conducted by the batch method to compensate for any variations resulting from the prior treatments.

In all of the hypochlorite bleaching stages, the pulp mass must be maintained in an alkaline state. The pH should be maintained above 8.4 or pink to phenolphthalein indicator. Caustic soda is required, and neither lime nor bleach liquor containing excessive lime should be used.

Uses of Bleached Kraft

Single stage semi-bleached kraft finds considerable use in butchers' paper and high tensile strength wrappers, where inroads are being made in the sales of comparable sulphite papers. The higher white semi-bleached kraft pulp lends itself to the manufacture of pleasing colored papers, exhibiting physical tests 50% or higher than comparable sulphite sheets. This class of kraft paper will find wide use in the higher grades of wrapping paper and cereal, sugar, coffee, and food packaging.

A high grade white kraft pulp is nearly equal in color to the better grades of bleached sulphite pulp. The bursting test is 40 to 60% greater, and the tear and fold are especially noticeable for their superiority. This type of pulp is finding its way into ledger, envelope, and other papers generally requiring rag stock. Some of the highly pure chemical pulps are entering into rayon, nitrocellulose, and cellulose ester production. The chemical properties of kraft pulp produced by one mill analyzes alpha-cellulose 95.5%, beta-cellulose 0.5%, gamma cellulose 3.5%, copper number under 1.00 and ash 0.1%.

Kraft papers take a good finish and with generally higher freeness permit increase in machine speed, adding to the daily output of the mill. Bleached kraft pulp will find many uses and replaces an appreciable quantity of sulphite pulp, which is a far step from the days when the sulphite mills dyed their pulp various brown shades in order to sell it in place of kraft wrapping papers.

ADDING DIGESTER AT SALEM

A 12-ton digester has been purchased by Oregon Pulp & Paper Co., Salem, Ore., for early delivery. It is expected to have the digester in operation around March 1. The new digester will be the same capacity as those in operation at

CAMERON WINDER INSTALLED AT CAMAS

A type 18 Cameron winder was recently installed to serve No. 5 machine at the Camas, Washington, plant of the Crown Willamette Paper Co. This is the latest model and capable of any speed required up to 2,500 feet a minute. Cameron rewinders are well known and widely used upon the Pacific Coast and are also manufactured by the Cameron Machine Company.

The Cameron winder is designed to automatically control tension, producing a uniformly wound roll without stars from the core to the outer layer. Uniformly wound rolls are coming more and more into demand where large rolls are employed on high speed converting machines or on presses.

The Cameron winder is rapidly coming to the front in news print mills in answer to the demands of newspapers for a smooth, round and evenly tensioned roll from bottom to top, which eliminates breaks on high speed presses.

An exclusive feature of the Cameron winder is a driven top riding roll, which prevents slippage and will indicate if any variations occur in caliper, thus giving the machine tender an opportunity to correct the thickness. Another feature of the machine is the grooving on the two bottom rolls, which straighten the paper and remove stresses, thus aiding in smooth winding. All bearings are anti-friction. The machine was installed at Camas on a Sunday and started right out on Monday and has been running steadily ever since.

This machine is a 142-inch trim, with 146-inch roll. The mounting of the slitters is such that weaving is eliminated, securing straight edge, clean cuts.

A new feature of this winder is found in the roll receiving arms for unloading. When unloading the receiving roll arms are kicked into position and the rolls moved directly onto floor dollies. This has done away largely with the handling of rolls by crane, thus eliminating bent shafts. The winder handles rolls up to 42 inches in diameter.

STORAGE WAREHOUSE SOON COMPLETED

The addition to the converting plant storage of the Crown Willamette Paper Co., Camas, Washington, is making rapid progress and is expected to be completed early in January. The addition will provide about 40,000 square feet of additional storage.

THE COVER PHOTOGRAPH

The photograph on the cover of this issue is a micro-photograph of a cross section of Western hemlock (Tsuga heterophylla), the magnification being X-40x. The picture, taken by H. P. Brown of the Department of Wood Technology, New York State College of Forestry, Syracuse, New York, and obtained for PACIFIC PULP & PAPER INDUSTRY by the Pacific Northwest Forest Experiment Station of the United States Forest Service, is reproduced through the courtesy of the New York State College of Forestry.

PIONEER-FLINTKOTE WORK UNDER WAY

Work is proceeding on copstruction of the new plant for the Pioneer-Flintkote Co. in Los Angeles, and all machinery has been ordered for early delivery.

Warehouses are being extended to the street line at present, necessary basements being excavated, etc., under the direction of A. E. Carlson, manager of the chip and boxboard division.

DUVALL HEADS PAPER TWINE ASSOCIATION

James Duvall, president of the Perfection Twine Company of Camas, Washington, has been notified of his election to the presidency of the Paper Twine Manufacturers Association.

Fourteen of the sixteen paper twine manufacturers in the United States are members of the association. Mr. Duvall took an important part in the organization of the association during the period of the NRA and he also served on the NRA code authority.

BLEACHED SODA PULP ADVANCES $2

Late in November the price of domestic bleached soda pulp was advanced $2 per ton to a price of $54 per ton, delivered paper mills.

The new price becomes effective on contract sales January 1st, 1937, and immediately on spot delivery sales.

This price increase follows the upward movement of the sulphite and kraft pulp markets and the recent increase of $5 to $7 per ton on book papers.

NEW PULP WOOD TUG

National Paper Products Co., Port Townsend, Washington, will shortly take delivery of a 56-foot all welded, all steel, tug designed for the handling of rafts of pulp wood. This will make the third tug of this type purchased by the company recently from the Commercial Iron Works. It is the largest of the three. It will be powered by a 160-h.p. Atlas-Imperial diesel engine.

NEW PACIFIC COAST TAPPI MEMBERS

The following Pacific Coast men have recently become members of the Technical Association of the Pulp & Paper Industry:

Thomas E. Moffitt of I. F. Laucks, Incorporated, Seattle; Leslie L. Larson, chemist with the Pulp Divison Weyerhaeuser Timber Company at Everett, Washington, and Laurence G. Harris, laboratory assistant, Pacific Mills, Limited, Ocean Falls, B. C.

Mr. Larson is a 1936 graduate from the University of Idaho and Mr. Harris is a 1933 graduate of the University of British Columbia.

CROWN USING ARTIFICIAL STONES

Crown Willamette Paper Co., West Linn, Oregon, is now using 12 artificial stones in its grinding department. Eleven of the stones are Norton. Four stones are run on a line, 3 artificial stones and one natural stone. Taylor Instrument Company controls are employed. The artificial stones with Taylor control are giving good results. One outstanding feature is that they hold the pattern longer and give promise of much greater life.

CELLOPHANE FOOD COVERS

Add another use for cellophane, that of food covers for pastries and other food products displayed on the restaurant counter. The new device is the invention of Rand Dillman, Portland, Oregon, restauranteur, and consists of a raised double wire frame, circular in shape, which serves as a support for a cellophane cover, the whole being used to protect individual desserts from dust and flies, while displaying them.

This device is termed the "Dillman Re-Nu Food Cover" and is now being manufactured on a moderate basis in Portland. Plans contemplate expansion of the market into a nation-wide project. "Use of cellophane instead of time honored glass shelves tends to lend a greater attractiveness to products thus displayed and increases sales volume," said Mr. Dillman, who has increased his pie sales more than 700 per cent in his cafe since putting the "Re-Nu" food covers in use some six months ago. The covers are changed at 10-day intervals.
present.

GRENNING A B. C. VISITOR

B. Grenning, director of forests of Queensland, Australia, recently made a tour of Vancouver Island and British Columbia mainland forests and logging camps with E. C. Manning.

Mr. Grenning says that although efforts are being made to plant large areas in Australia with commercial timber it will be many years before the country can supply its own requirements, and it will remain a customer for Pacific Northwest timber products for many years.

Replanting is being done in Queensland, says Mr. Grenning, at a cost of $80 an acre, compared with the estimated cost of $15 an acre in British Columbia.

MORE HEMLOCK IN NEWS PRINT

Although the tests have not yet reached a point where detailed results can be announced, chemists in one of British Columbia's pulp mills are said to have practically perfected a process for the utilization of a much larger proportion of hemlock in the manufacture of pulp.

If the process proves practicable—and at present there is no indication that it will not be—its utilization will mark one of the most important steps in British Columbia's forest economy in years. Hemlock occurs in great volume in many sections of the province, but demand for it as lumber has always been less than for Douglas fir and cedar. If the pulp mills can make more complete use of hemlock, it will make much fuller and more economical cutting of timber possible.

Powell River Company laboratories have been working for years on plans to make greater use of hemlock in newsprint manufacture, and considerable success has been attained. A much larger proportion of hemlock now enters into the manufacture of newsprint than formerly.

With the newsprint market highly competitive, B. C. mills temporarily suspending the pushing of hemlock as they did not wish to take any chances in impairing the product until the process had been perfected. With the gradual improvement of the hemlock-using processes and the return of a seller's market in newsprint, it is expected that the mills will return to the experimentation and make the once despised hemlock the "cinderella wood" of the Pacific Northwest.

HENRY MANAGER OF FRY ROOFING

William Henry, formerly of Chicago, is now local manager for the Lloyd A. Fry Roofing Co. and Volney Felt Mills at Compton, Calif. The head of the concern, Lloyd A. Fry, makes his headquarters in Chicago most of the time.

FIBREBOARD CHRISTMAS PARTY

Saturday, Dec. 19, was the date of the annual Fibreboard Club Christmas party for employees of the Los Angeles plants. A turkey dinner was served at a local Huntington Park restaurant, the crowd later adjourning to the Women's Clubhouse nearby for dancing. During intermissions, vaudeville acts were presented.

The little Fibreboard folks were not forgotten in the Christmas rush, and an afternoon party for children from 2½ to 9 years old was scheduled for Dec. 12.

T. M. King, assistant to the comptroller of the company in San Francisco, paid the plant a visit last month, on one of his infrequent southern trips.

Other company guests included E. J. Farina, and George Martin, who heads the company's activities in Hawaii. Mr. Martin will probably make the Coast an extended visit, unless the marine strike is soon settled or unless he flies aboard the China Clipper.

Don Hay, formerly cashier at Vernon, and now in the San Francisco office, also dropped in to visit old friends at the plant.

Cort Majors, sales manager of the southern division, was heard over a coastwise radio hook-up Nov. 21 between halves in the Stanford-California football game, in a tribute to the memory of "Fat" Latham, California football celebrity. Mr. Majors officiated, not only as a game official, but also as a former member of the California team.

PLENTY OF WATER AT OCEAN FALLS

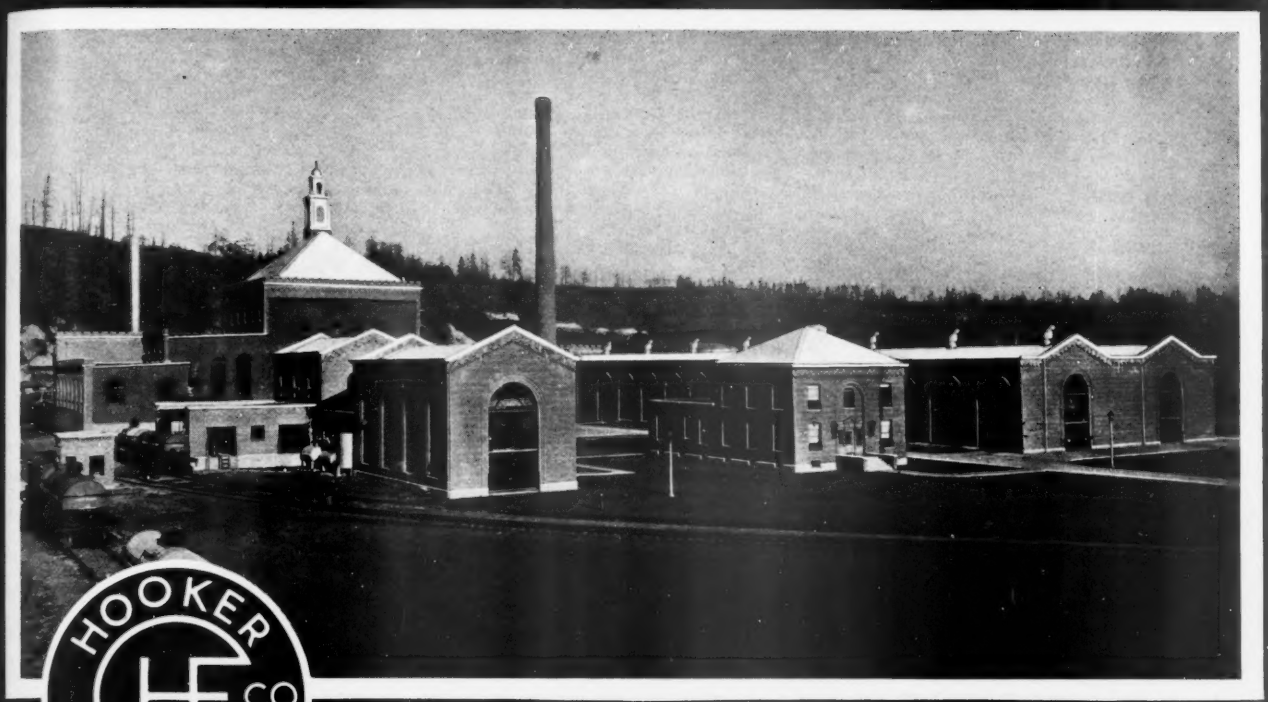
One problem that will not worry officials of Pacific Mills, Ltd., this winter is shortage of water. They have had so much rain up there during the last few weeks that the supply should be adequate for a long time to come, in spite of the heavy consumption of the big British Columbia newsprint mill.

In two days recently enough rain fell to discharge 100,000,000 tons of water through the gates of the company's dam. Statisticians point out that this was enough water to supply Vancouver, with its 250,000 population, for an entire year, using water at the maximum rate.

Twelve inches of rain fell over a watershed of approximately 140 square miles. Since one inch of rain on one acre of land weighs one hundred tons, twelve inches of rain is the equivalent of 1200 tons, and over a watershed of 140 square miles this amounts to more than 100.000,000 tons of water.

The pulp and paper mills at Ocean Falls use 5,000,000 tons of water daily, so in the rainstorm period they spill the excess, which, it is estimated, would have been sufficient to meet the mill's requirements for forty days.

Water was pouring out of the thirteen gates of the dam in such volume, and traveling with such force, that ships could not dock at the Canadian government piers. One of the larger passenger vessels had to anchor in nearby Cousin's Inlet until morning. Another broke three cables and drifted away.



HOOKER ELECTROCHEMICAL CO

CAUSTIC SODA
LIQUID CHLORINE
FOR THE NORTHWEST

Appreciating the diversified uses of Caustic Soda and Liquid Chlorine, the Hooker Company offers the technical services of an experienced engineering staff. Mills in the east and south as well as the west have used Hooker service to help solve their operating problems. At Tacoma, Washington, are maintained plant, laboratories, field staff and administrative personnel to serve west coast industries.

WESTERN PLANT, Tacoma, Washington
Western Sales Office, Tacoma, Washington

EASTERN PLANT, Niagara Falls, N. Y.
Eastern Sales Office, 60 East 42nd St., New York

HOOKER ELECTROCHEMICAL COMPANY

MURIATIC ACID · BLEACHING POWDER · MONOCHLORBENZENE · PARADICHLORBENZENE
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SULFUR MONOCHLORIDE · SULFUR DICHLORIDE · SULFURYL CHLORIDE · SALT
FERRIC CHLORIDE · ANTIMONY CHLORIDE

5503

MARINE STRIKE DELAYS POMONA PAPER PRODUCTS CO.

Installation of machinery for the Pomona Paper Products Co., Inc., in the plant of the California Fruit Wrapping Mills, Pomona, Calif., has been postponed until the end of the present maritime strike. Much of the machinery is on hand, but several essential units are still aboard ships tied up in San Pedro.

When this equipment is released for delivery, installation of the plant for the manufacture of waxed paper products will proceed. Installation men are already on the job, but Mr. Marcalus, head of the concern, is not expected at Pomona until they are ready to go ahead.

MAJORS SERVES AS FOOTBALL OFFICIAL

Cort Majors is best known as sales manager of the southern division for Fibreboard Products, Inc., but back about 1920 he was better known as one of the lineman stars of football at the University of California. Now, in addition to his duties at the Vernon office, he keeps the feel of the game in his blood during the football season by officiating as umpire in Pacific Coast conference games.

For 12 years he has followed up the sport at which he was tops, by being a field official each fall. This year he umpired the U. S. C.-Oregon game, U. S. C.-Stanford, U. C. L. A.-Washington, U. C. L. A.-Stanford, and Oregon State-Nebraska.

Mr. Majors was a member of the California team for four years, when Andy Smith was coach and the squad was on top of the heap. He played guard and tackle on these famous teams.

After graduating at Berkeley in 1921, Mr. Majors joined the Paraffine Companies, Inc., starting in at the board mill at Antioch, and working through the converting plant, office and sales department. He continued with Fibreboard upon consolidation of the companies, and in 1933 became sales manager of the southern division, Los Angeles, which position he now holds.

So next time your football favorite in California loses and you feel like braining the refere or somebody, hold your fire. It might be Cort Majors.

CORT MAJORS
Fibreboard's Football Referee

JOHN FERNSTROM RETURNS TO SWEDEN

John Fernstrom of Fernstrom & Co., left Pomona, California, on Dec. 3rd for Stockholm, Sweden, after an extended visit with his brother, F. O. Fernstrom, head of the California Fruit Wrapping Mills. He had planned to stop in Holland on business while en route, but being unable to secure accommodations on the fast ship "Queen Mary," changed his itinerary, going direct to Stockholm so as to be there by Dec. 18.

OCTOBER NEWS PRINT STATISTICS

Production in Canada during October, 1936, amounted to 301,106 tons and shipments to 307,250 tons, according to the News Print Service Bureau. Production in the United States was 81,027 tons and shipments 81,544 tons, making a total United States and Canadian news print production of 382,133 tons and shipments of 388,797 tons. During October, 30,677 tons of news print were made in Newfoundland, so that the total North American production for the month amounted to 412,810 tons. Total production in October, 1935, was 378,175 tons.

The Canadian mills produced 356,708 tons more in the first ten months of 1936 than in the first ten months of 1935, which was an increase of fifteen and nine tenths per cent. The output in the United States was slightly greater than for the first ten months of 1935, in Nowfoundland production was 8,253 tons or three per cent less, with no production in Mexico, making a net increase of 333,020 tons, or ten and one tenth per cent.

Stocks of news print paper at Canadian mills were reported at 59,574 tons at the end of October and 16,424 tons at United States mills making a combined total of 75,998 tons compared with 82,596 tons on September 30, 1936, and 87,658, tons on October 31, 1935.

MacNAUGHTON RETURNS TO NEWS PRINT SERVICE BUREAU

Mr. R. S. Kellogg, secretary of the News Print Service Bureau, announced in November that W. G. MacNaughton had rejoined the bureau as engineer, the posisition he held during 1928 and 1929.

Mr. MacNaughton's experience covers 28 years in the North American paper industry in both technical and managerial capacities. A chemical engineering graduate of McGill University in 1904, he was one of the organizers and first vice president of Technical Association of the Pulp and Paper Industry in 1915 and secretary of that organization for six years beginning in the fall of 1921. After a period with the News Print Service Bureau he was in the head office of the International Paper Company for some time, while for the past four years he has been connected with the experimental Pulp and Paper Laboratory at Savannah, Georgia.

WERTHEIMER HONORED

Robert S. Wertheimer, resident manager of the Longview Fibre Company of Longview, Washington, was recently honored by election to the executive board of the newly formed Region 10 of the American Power Boat Association.

This is a national organization to promote power boating, power boat facilities and organized boating competition.

BOOK PAPER PRICES MOVE UP

During November the book paper mill increased prices of uncoated book papers $5 per ton and of coated papers $7 per ton to offset increasing costs of labor and raw materials.

B. C. TIMBER POLICY

The British Columbia government has withdrawn an amendment to the Forest Act by which it would take the right to control timber operation on crown-granted lands.

This decision was reached following an agreement between owners of crown-granted timber and the government by which they will carry out all policies laid down by the British Columbia forest service in slash burning and the preservation of seed trees.

Hon. A. Wells Gray, minister of lands, says that he expects the agreement will be respected, but if there is any neglect on the part of the timbermen the government will take steps to invoke the control clause.

The government will have the forest branch prepare regulations specifying the exact nature of the control required.

FORESTERS TO VISIT PULP MILL

One of the field trips being arranged for those who will attend the meeting of the Society of American Foresters in Portland in mid-December will embrace a visit to the pulp mill of the Weyerhaeuser Timber Co., Longview, Washington. Western members of the society desire to impress upon visitors from the east both the importance and the possibilities of the Pacific Coast pulp and paper industry. The trip to Longview is scheduled for December 17.

CERTAIN-TEED PROFIT DOWN

Third quarter profits of the Certain-teed Products Corporation and subsidiaries amounted to $131,203 against a revised net profit for the third quarter of 1935 of $201,006. Second quarter profit of this year was $71,211.

For the nine months ending September 30th the company's net loss was $74,547 against a revised net profit of $364,714 for the first nine months of 1935. These figures do not include proportionate earnings of the Sloan-Blabon Corporation, makers of floor coverings.

PARAFFINE PAYS THREE DIVIDENDS

Directors of the Paraffine Companies, Inc., on November 17th, declared a dividend on the preferred stock of $1 per share, payable January 15th to holders of record December 31st.

At the same time a quarterly dividend of 50 cents per share was declared on the common stock, and an extra dividend of 50 cents a share as also declared on the common. Both are payable December 23rd to stockholders of record December 7th. This marks the eighth extra dividend paid on the common stock.

CROWN WILLAMETTE PAYS ON DIVIDEND ARREARAGE

On November 18th the directors of the Crown Willamette Paper Company declared a dividend of $1.75 a share to apply on preferred stock dividend arrearage. The payment, amounting to $350,000 will be paid to 4,585 shareholders on January 1st to those of record December 14th.

After this payment the preferred stock will be $2,200,000 in arrears, or $11 per share.

RAYON

We are indebted to Mr. Francis A. Adams, editor of Rayon Textile Monthly and president of the Rayon Publishing Corporation, for the following interesting data on the expansion of the United States rayon industry.

"During the current year the Viscose Company and the DuPont Rayon Company raised their acetates rayon yarn plant capacities from 2,000,000 pounds respectively to 10,000,000 pounds. With each of these companies now on the basis of producing 10,000,000 pounds of acetate per year, an impulse has been given to this type of yarn and the Tubize Chatillon Corporation, at their plant in Rome, Georgia, has resumed the production of acetate rayon and increased its capacity on this type of yarn. They have also increased production on the viscose type yarn during the year by some 5,000,000 pounds to 7,000,000 pounds.

"For 1937 plant expansions call for an additional 10,000,000 pound unit on viscose rayon by the Viscose Company, the completion of a 10,000,000 pound unit by the same company for the production of cut rayon staple, in addition to the new plants of the Industrial Rayon Corporation at Cleveland and Covington.

"To sum up, the picture of rayon for 1937 indicates a production of 280,000,000 pounds of viscose type rayon yarn, 75,000,000 pounds of acetate rayon yarn and something close to 10,000,000 pounds of cuprammonium yarn and somewhere close to 20,000,000 pounds of rayon staple fiber. All of this will be the production of the American rayon manufacturers and will call for pulp, except for the fraction that is represented by the cotton linter type (acetate and cuprammonium—Editor)."

From Mr. Adams' estimate it is apparent that the 1937 production of rayon yarn of all types in the United States will total 385,000,000 pounds. This is an increase of 128,000,000 pounds over the 1935 production in the United States of 257,000,000 pounds (the rayon industry's own figures—The U. S. Census Bureau lists U. S. rayon production in 1935 at 265,000,000 pounds), a two-year increase of approximately 50 per cent.

The increased demand for bleached sulphite pulp by the viscose type rayon manufacturers is self evident. In addition is the increasing use of bleached sulphite pulp in cellophane and other transparent cellulose sheeting, lacquers and plastics.

ITALIAN RAYON PRODUCTION IN 1935

Italian production of rayon, staple fiber, and waste in 1935 totaled 72,355,500 kilograms, compared with 51,053,300 in 1934, according to statistical data recently published in the "Annuario Statistico Italiano, Anno 1936-XIV. Quarta Serie, Vol. III." Waste accounted for 3,367,800 kilograms in 1935 and 2,448,400 in 1934, but no separate figures were given for staple fiber, the large scale production of which is a relatively recent development.

Italian exports of synthetic textile fibers, raw, amounted to 21,726 metric tons in 1934 and 21,708 in 1935, but the value declined from 299,080,000 lire in 1934 to 265,462,000 in 1935. Waste of such fibers was exported in larger volume in 1935—12,061 metric tons valued at 87,299,000 lire, compared with 8,235 tons valued at 61,420,000 lire in 1934. Imports of synthetic textile fibers declined to 424 tons valued at 6,492,000 lire in 1935, from 1,058 tons valued at 17,421,000 lire in 1934. Average exchange value of lira was $0.0825 in 1935 and $0.0856 in 1934. (Consul Lester L. Schnare, Milan.)

INCREASING PULPWOOD PRICES IN SWEDEN

Preliminary reports concerning the latest auctions for timber and pulpwood from the state forest areas indicate, according to trade sources, that "astonishingly high prices" have been obtained by the Board of Crown Lands and Forests (Domntyrrelsen) for both ordinary saw logs and pulpwood. A wide variation in price level prevails because of the varying location of timber supplies and other circumstances of sales, but it is generally estimated that the scale of prices for ordinary saw logs is now some 25 to 30 percent above the prevailing level a year ago and for pulp wood the range is placed at from 25 to 35 percent higher.

As a sequel to these state forest auctions, which are for timber supplies located almost entirely in the northern portions of Sweden, a meeting has been held by forest owners and timber associations in southern Sweden and a decision reached to increase the present prices for pulpwood by approximately 25 percent.

SWEDISH PULP AND PAPER PRODUCTION CONTINUES AT HIGH RATE

Production and export of various kinds of pulp have continued at a high rate of activity during the third quarter, while in contrast the market and trade situation has remained extremely quiet, with very few outstanding developments of any kind. This latter phase of the situation is accounted for partly by the usual dullness of the holiday season and partly by the fact that at the end of the half-year the production capacity of mills had been practically sold out for the remaining portion of the year. Exceptionally large sales had been entered for 1937 delivery and some sales concluded for 1938.

In spite of the high rate of production activity throughout the current year, it is unlikely that financial results for the companies will be proportionately favorable. Most of the current output was sold during 1935 at the lower prices then prevailing, and there has been some increase in cost of production so that the margin of profit for producers has narrowed.

The removal of sanctions against Italy and the conclusion of a provisional trade agreement between Sweden and Italy, has made possible renewed business in that market but the continuation of the civil war in Spain has hindered trade there. Present indications are that the stock at mills at the close of the year will be unusually small. Under these circumstances it is only natural that sellers are not enthusiastic about making sales for 1938 delivery at present prices. The 1937 production has already been sufficiently sold to obviate any urgency in respect to further contracts in the immediate future. No immediate nor direct effect of special significance to the pulp market situation is yet evident as a result of the recent financial and currency adjustments in certain of the continental countries. It is anticipated that any general effect will be favorable rather than otherwise.

Kraft pulp was the most inactive of all classes during the third quarter, for the reason that all of the 1936 production had been sold during the first 6 months of the year. Advanced sales for 1937 delivery, and some for 1938 delivery, have been unusually heavy. The market for sulphite pulp was more active, with interest centered in unbleached and strong pulp during the third quarter. The mechanical pulp market throughout the summer period was characterized by quietness. The 1935 production was disposed of by the end of the second quarter, but neither buyers or sellers showed any inclination to transact further business in view of the uncertainty in prices.

SULPHITE PULP SUPPLIERS INCREASE EXPORT QUOTA

An agreement was reached by "S. P. S." at a meeting in Helsingfors on July 28 to increase the export quota for sulphite pulp during the current year by the amount of 100,000 metric tons, thus bringing the total export figures for 1936 by members of the S. P. S. cartel up to 2,600,000 metric tons. Although this agreement to allow increased production by 100,000 tons has been verified, there is no further information available regarding distribution of the quota among countries or producing firms. (Trade Commissioner Charles E. Brookhart, Stockholm.)

DIRECTORY OF LABORATORIES

The National Bureau of Standards has just issued a third revised edition of the Directory of Commercial Testing and College Research Laboratories, replacing Miscellaneous Publication M90, which has been out of print for the past two years. The new directory lists commercial laboratories throughout the country with information concerning the commodities which they are prepared to test. There is presented also a list of college laboratories which are used not only for instruction purposes but also for research.

A brief outline of the certification plan is included, with a tabulation showing the number of commodity groups for which lists of willing-to-certify sources of supply have been compiled. These lists are made up of manufacturers who have expressed their desire to supply material in accordance with certain selected specifications and are willing to certify to the purchaser upon request that the material thus supplied is guaranteed to comply with the requirements of the specifications.

The directory, designed as Miscellaneous Publication M125, may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 15 cents.

THE BELOIT HORIZONTAL DUAL PRESS

By T. C. ROBERTS*

A few weeks ago Mr. Fred C. Boyce, the first president of your organization, suggested that the Pacific Coast Division might be interested in a discussion on the Beloit Horizontal Dual Press which is, without a doubt, the most outstanding improvement in press sections in recent years. Arrangements were made with your meeting chairman, Mr. Hassler, making it possible to appear before you and exhibit a model of this new press section.

About a year ago, Beloit engineers were confronted with a problem of increasing the capacity of a machine which occupied all the available space in the machine room, thus making it impossible to lengthen the dryer section to obtain the increased capacity. After much study the Beloit Horizontal Dual Press was conceived to meet this situation.

We received complete co-operation from Mr. Youngchild and his associates who recognized the possibilities of this new design and were willing to go ahead with the first installation. It is mutual cooperation of this kind between the mill and the machine builder which is so necessary for the development of improvements in paper mill machinery.

*Sales Engineer Beloit Iron Works, Beloit, Wisconsin. Presented at the meeting of the Pacific Coast Division, American Pulp & Paper Mill Superintendents Association, Portland, Oregon, December 4th, 5th, 1936.

We were able to install four 48" diameter paper dryers and the Dual Press in the same space as previously occupied by their conventional press. The original press consisted of a first press and a reversed second press. The Dual Press does not contain a reverse press but there was no difference in the two sidedness of the paper made over the Dual Press as compared with the paper made over the conventional press.

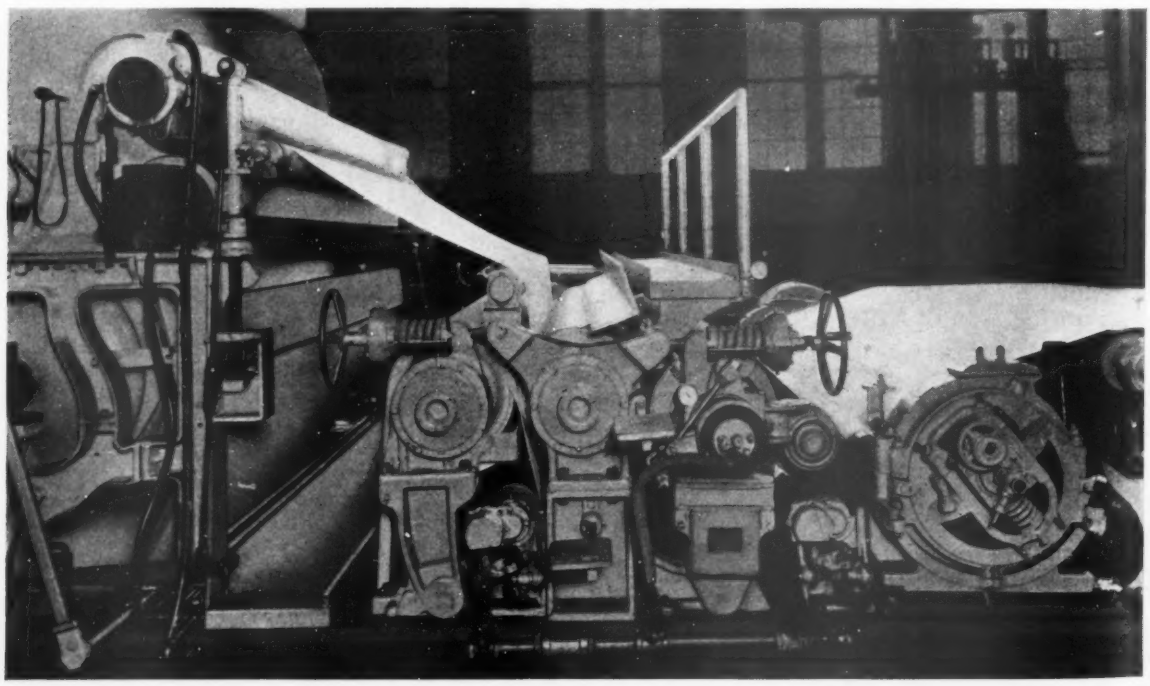
One of the major features incorporated in the design of the Beloit Horizontal Dual Press is the saving of space in the machine room. As you are well aware many of the older machines which were designed for slow operating speeds, have been speeded up to a point where they lack sufficient drying capacity for economical operation. The space saved by the Dual Press can be utilized to add additional dryers to help this condition. Other machines which were designed for slow operating speeds have been speeded up to a point where it is difficult to form a sheet satisfactorily on the wire because of the short length of forming space. Thus, the space saved by the Dual Press can be used for lengthening the fourdrinier wire to improve this condition. Each of these changes, that is, the addition of dryers or lengthening the fourdrinier wire can be made without alterations to the building.

Another major feature of this Dual Press is the elimination of breaks in the press section. The sheet is drier than in the usual press section, thus the sheet is stronger and less apt to break. Also, the draws are eliminated, resulting in a stronger sheet, and no strains to impair the sheet strength.

The Beloit Horizontal Dual Press increases the efficiency of the machine. The sheet leaves the felt immediately after leaving the nip, thus there is no chance for the sheet to re-absorb moisture from the felt. The water squeezed out of the sheet and felt at the plain second press nip falls away from the nip by gravity, thus there is no water trapped in back of the nip causing crushing and deformation of the sheet fibres as in the case of the conventional press. It is obvious that because of the action of the water falling away from the nip, that it is possible to use more nip pressure and thus increase the efficiency of this plan second press nip.

The down-time consumed by felt changes has been reduced to the minimum thus adding productive hours to the machine.

The felts operate under very little tension thus permitting the maximum water drainage. There are no reverse bends in the felt, no hitches as there are no outside rolls. It has been proven that



The Beloit Dual Horizontal Press in Operation

wherever a hitch in the felt can be eliminated the felt life is increased. Approximately two-thirds of the usual number of felt rolls are eliminated. In our first installation there were a total of five felt rolls, three on the first press felt and two on the second press felt, as compared with a total of fifteen felt rolls used in the conventional press which was replaced with the Dual Press.

When changing felts there are no top rolls to lift. To separate the rolls at the nip it is only necessary to eliminate the spring tension and the outside press rolls fall away from the nip by gravity because the roll mountings are pivoted off center.

The felts run vertical and are as easily guided as a vertical belt on crown face pulleys. The crown in the press rolls seems to be sufficient to guide the felts and the automatic felt guides have very little work to do. The felts do not pass through a puddle of water at the nip, thus they do not fill up as quickly as in the conventional press.

Due to the short space occupied by the Dual Press the operator has to take only a few steps from the time he starts the sheet on the first press felt until he takes the sheet from the second press and passes it on to the smoothing rolls or lead dryer. The roll centers are low so that the operator can look directly down into the nip and see just what is taking place, also this low height is convenient for passing the paper through the press.

The nip pressure is applied by hand wheels through back gearing against calibrated springs. This is a very simple and positive arrangement as there is no binding of levers and pins. We have an indicator to show the operator the amount of spring compression or this can be computed in terms of nip pressure. Thus, the nip pressure can be easily duplicated for each given weight and grade of paper. Some mills prefer hydraulic mechanism and this could be easily arranged if desired. The same holds true with the weight lever system.

Some mills pre-heat the sheet to help liberate the water and the design of the Dual Press lends itself to this arrangement as the center roll which has a long, continuous contact with the sheet can be heated with steam.

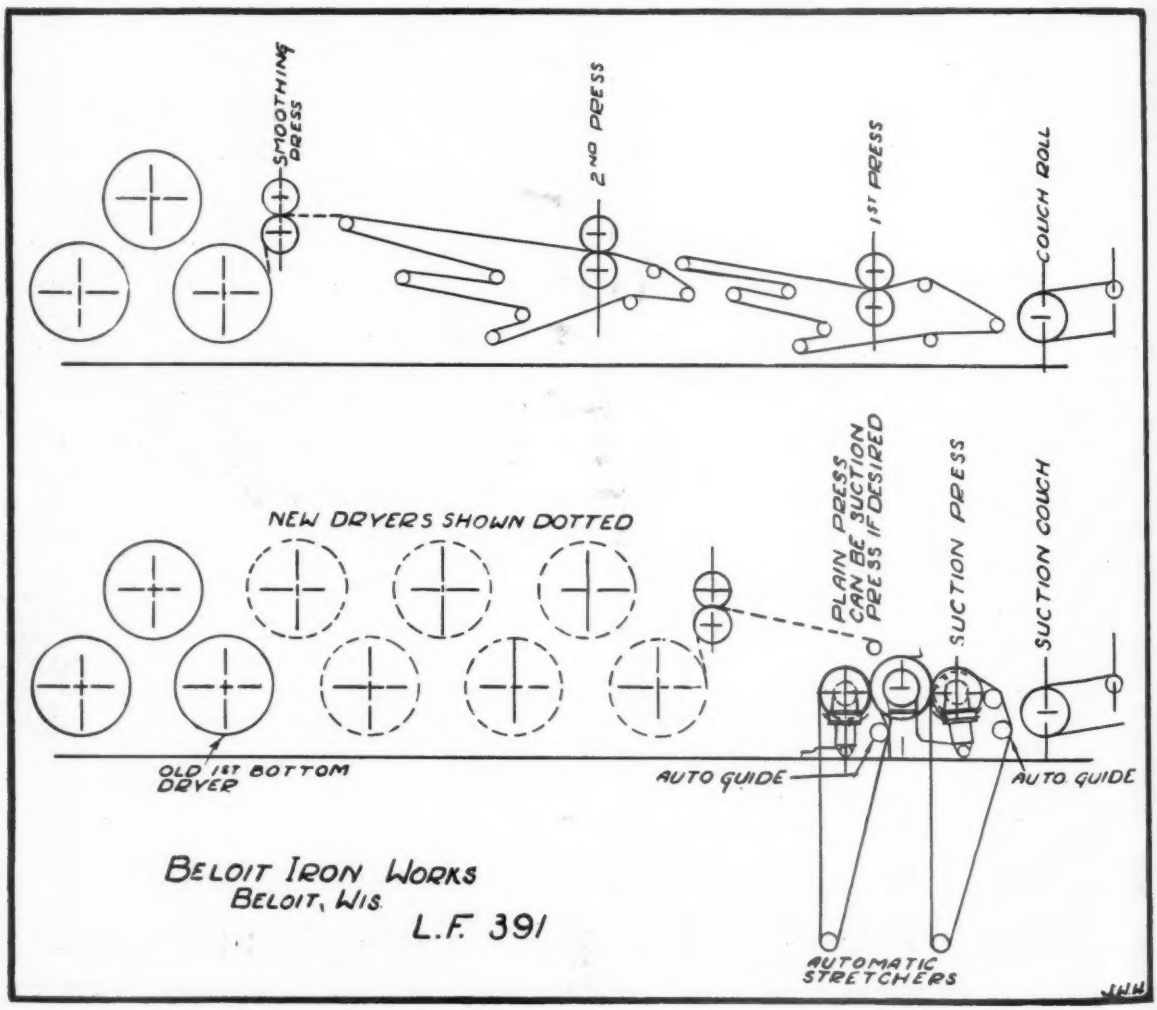
For crepe papers, we would use a large crepe dryer as the center roll of the Dual Press.

The first roll in the Dual Press must be a suction roll to prevent water being passed in back of the nip. In the first installation the first roll was a rubber covered Beloit suction press roll and the center roll was a Stonite covered roll and the second press, or outside roll, was a regular rubber covered plain roll. For high speed, news or kraft machines, we recommend a suction press for the second press position.

The suction press in the Dual Press must be designed to take side load and any existing Beloit roll can be easily adopted for use in this new press.

There are no top press roll drives required as the center roll acts as the top roll for each press and this roll is driven by the two outside rolls. All three press rolls are mounted in anti-friction bearings. There is only one main drive required for this press and that drive is connected to the first press roll. On the in-driving shaft of the first press, we locate a taper pulley which is belted to a taper pulley on the in-driving shaft of the second press. There are universal joints in each of the in-driving shafts so that when the press rolls are separated at the nip, it is not necessary to disconnect or disturb the drive.

The Beloit Horizontal Dual Press can be adopted to any existing machine and without a doubt will be the press section for future machines having a basement because of the vertical felts. Just recently several Beloit Horizontal Dual Presses have gone into operation and several more are in the process of manufacture, thus this new design is rapidly gaining favor among the mills.



ACCIDENT PREVENTION— AN OPERATING PROBLEM

By JOHN W. BAGWILL*

The human suffering and misery that result from accidents far overshadow their costs, and the moral and humanitarian obligations that are involved in accident prevention must be appreciated and there should be a complete understanding of them by both employer and employee. This suffering and misery, however, are the outcome of an accident and their relation to accident prevention is only that of a teacher pointing the way to future prevention.

The costs involved when an accident occurs are also results and therefore will be discussed here only briefly because a more thorough understanding of what an accident actually costs will bring home very forcibly the tremendous saving to industry that is possible by preventing accidents.

The costs of an accident can be broken down in two main groups.

I. Direct Costs

1. Cost of compensation paid to injured employees, and medical aid costs of treating the injury.

II. Indirect Costs

1. Cost of lost time to the employee (difference between wages lost and compensation).

2. Cost of time lost by other employees.
   a. Assisting the injured person.
   b. Curiosity. It is no uncommon sight to see a whole department cease functioning when an accident occurs.
   c. Stopping work to sympathize with injured person or discuss injury with other employees.

3. Cost of time lost by Foreman, Supervisors, Clerks and others.
   a. Assisting injured person.
   b. Investigating accident.
   c. Selecting, training, and breaking in a new employee to take the place of the person injured.
   d. Making out reports.

4. Cost of machines, tools, stock, damaged by the accident.

The total costs of lost year's accidents can be closely judged by adding the compensation paid by the state to injured employees, to the medical aid costs of treating those injuries, and multiplying the sum by four. The answer is a fair estimate of the cost borne by the employer and his employee.

Statistics, and information gathered from accidents are extremely important to have to determine how and where to attack the problem, and the problem to be attacked in this case is "How to Prevent Industrial Accidents," and "Where lies the greatest opportunity to prevent accidents."

Twenty-five years ago the causes of industrial accidents were fairly evenly divided between machinery and lack of proper guards, and the personal or human element. Industry has led the country in its war on accidents in these past twenty-five years and today the plant with unguarded equipment, poor lighting and ventilation is the exception. An analysis of industrial accidents for 1935 shows a new division; only approximately 3% of all industrial accidents are caused by equipment failures or poorly guarded machinery and 97% are the result of conditions arising out of the imperfect functioning of the human mind. This type of accident has not been materially reduced in the past two decades. Here lies the opportunity. Now the next problem: How to Prevent This 97% of the Accidents.

Before getting to the problem there is one fundamental premise that must be accepted. **No Man or Woman Wants to Get Hurt.** A man's instinct of self preservation is so well developed that at any sign of danger he immediately and unconsciously backs away from it. Try touching the pupil of your eye with your finger. It just will not work. Place your left thumb on the table and attempt to strike it a severe blow with a solid object. That cannot be done either. Why, then, do people get hurt? It is because they do not know that danger exists.

Carelessness, lack of thought, haste, inexperience, are time worn excuses that have been easy outs for investigating committees. Not many accidents can be explained away that easily. Further study reveals that they are a result of improper or lack of training, poor or inconsistent supervision. They are simply the result of an operating problem that has not been successfully mastered.

To lay down a set of hard and fast rules that would fit all cases is of course impractical but a few standard practices can be developed and if faithfully observed acnnot but help solve the problem.

First—Take the responsibility for preventing accidents out of the "committee room" and place it, where it belongs, on the shoulders of the supervisor.

Second—Select the right workman for the job. Turn that man over to the supervisor with a definite understanding that he will be shown the hazards that exist in connection with his work. To impress on the new employee the importance that is attached to this, hand him a form to present to his supervisor that reads like this: I have thoroughly instructed Mr. Smith in his duties, and have shown him all the hazards connected with his work (supervisor signs this). On the same form is a statement like this: I have been given instructions by my supervisor, Mr. Jones, in my duties and understand fully my responsibilities to myself in connection with my personal safety, the safety and well being of those with whom I work, and the care of the equipment with which I work, and the material I handle. After a period of one week the employee should return this report to the personnel office with his and his supervisor's signatures. There is very little doubt left in his mind as to what is expected of him, and at the same time the supervisor has taken an obligation that he must fulfill.

Third—Train the man. First of all tell him about the job and the function of the operation so that he can follow the work intelligently while it is being demonstrated. After demonstrating the work test him to make certain that he remembers what he has been told and what he has seen.

Fourth—Consistently supervise his work to be certain that he continues to do the job properly. The results of the

*Personnel and Safety Supervisor, Grays Harbor Pulp & Paper Company, Hoquiam, Washington.

THE GRAYS HARBOR SAFETY RECORD

The success of the GRAYS HARBOR PULP & PAPER COMPANY'S methods of accident prevention is shown by the reduction in the frequency and severity of accidents.

PERIOD	FREQUENCY	SEVERITY
1929-1933	47.95	6.98
1934	36.30	1.40
1935	30.50	1.55
1936 (1st 10 months)	16.25	.64

last twenty-five years are sufficient evidence that the proper way to do a job is the safe way.

These four rules are not rules of safety. They are principles of good supervision. Analyze the causes of the next accident in your plant. Was a predetermined standard method of doing the job being followed? If not, why? If the operator had not been told, why? Perhaps he had been told and for some reason was disregarding instructions, why? Can any problem be more clearly or logically a problem of Supervision?

When management (which includes foremen and supervisors) makes an operating problem out of Accident Prevention work, accidents should be reduced very rapidly, because management's business is solving operating problems.

YEAR'S TREE PLANTING MARK APPROACHES RECORD

Second largest annual tree planting program in the history of the National forests of Oregon and Washington is being completed this month according to records of the U. S. Forest Service just made public. In spite of delay caused by the unprecedented dry spell and the fact that so many men were engaged on fire duty, a total of 1,480,000 young trees are being planted on 2,000 acres this season. Combined with last Spring's plantings, this brings the year's total to 3,038,000 trees covering 4,418 acres, or approximately 7 square miles of forest area. The total closely approaches the record set in 1934 when 3,295,000 trees were planted.

All plantations this season consist of two-year-old Douglas firs which are being used to reclaim burned over or logged off areas. In the Willamette National Forest near Oakridge 320 acres are being planted to 250,000 young trees. On the Siuslaw National forest near Mt. Hebo 200,000 trees are being used.

In Washington 780 acres are being reforested in the Soleduck, Cook Creek and Quilcene districts of the Olympic National forest; 300 acres in the Beckler River area of the Snoqualmie National forest; and 200 acres in the Sauk River on the Mt. Baker National forest.

Tree planting work this fall is being done by the CCC and ERA. Since their establishment in Oregon and Washington, CCC tree troopers have planted more than 8,000 acres to young trees, which are supplied from the forest service nursery at Wind River, near Carson, Washington.

Forest officials point out that natural reproduction is reforesting most of the logged off Douglas fir areas of the two states, but that planting is required on the extensive areas where seed trees have been destroyed and where fires such as those of the recent season have wiped out the young growth.

BOX MAKERS TO GOLF

Annual banquet and golf tournament of the San Francisco division of the Pacific Coast Paper Box Association was to be held at the Lake Merced Golf & Country Club Dec. 10. Chairman of the committee in charge was Willis H. Thomas of Fibreboard Products and the members were Gus Trost of the Fleishhacker Paper Box Co., R. O. Comstock of Charles J. Schmitt Co. and Fred C. Kuhl of the Western Paper Box Co. About 50 were expected.

GENERAL DYESTUFFS OCCUPIES NEW BUILDING

Every departmental activity of the General Dyestuff Corporation is now coordinated under one roof in a newly erected nine-story building located at 435 Hudson Street, between Leroy and Morton Streets, New York City. With the exception of one-half floor tenanted by the General Aniline Works, for which GDC is sole eslling agent, the company occupies the entire building. Modern in every respect, it offers not only every facility for the efficient operation of their executive and general offices but also ample space for their main laboratories, shipping and warehouse rooms.

General Dyestuff Corporation's activities are thus centralized and modernized to meet the increasing demands of industry for complete service and a comprehensive line of dyestuffs for wool, cotton, silk, rayon, paper, leather, paints, dry colors, resins and various other products requiring colors or allied materials.

The new structure is said to be the largest of its type to be erected in the city within five years. It is so constructed as to permit the erection of three additional stories should increased business warrant further expansion. Many of its interior features are exceptional. For instance many of the wall partitions are of the new structural glass brick.

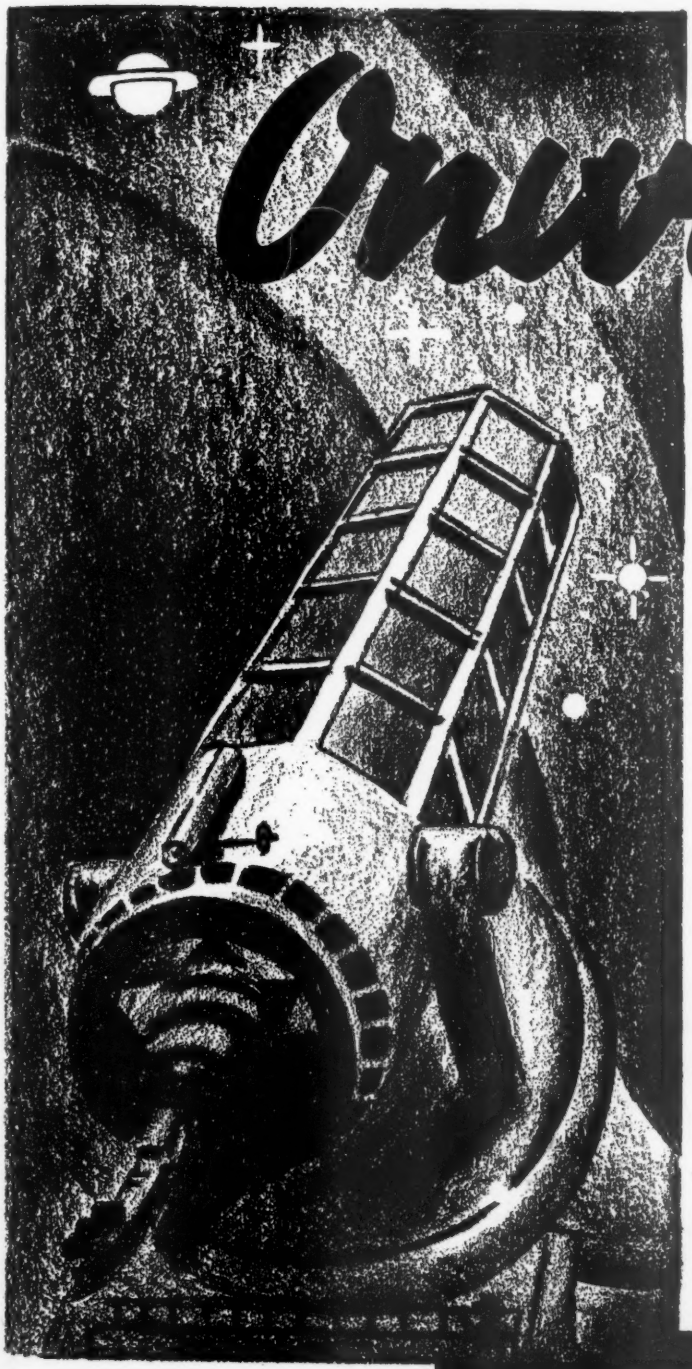
H. A. Des Marais, Terminal Sales Building. Portland, Oregon, is the Pacific Northwest representative for the General Dyestuff Corporation.

EFFORTS TO CREATE AN AUSTRALIAN WOOD PULP INDUSTRY

No wood pulp is produced in Australia. The several paper mills in the country, which produce paper board, kraft and some heavy paper, are at present entirely dependent on imported pulp.

However, two Australian companies have for several years been interested in the possibility of producing pulp from Australian hardwoods. A company known as Associated Pulp and Paper Mills, Ltd., was formed in April, 1936, for the announced purpose of establishing a pulp and paper mill near Burnie, Tasmania, capable of an annual production of 15,000 long tons of fine printing, writing and typewriting papers, the pulp to be manufactured from Australian hardwood. However, the plans of the company have not yet reached the stage to permit a more detailed description of the kinds of wood pulp to be produced. In any case, no wood pulp mill will be in operation in Australia before the end of 1937, at least. (Assistant Trade Commissioner Wilson C. Flake, Sydney.)

THE NEW GENERAL DYESTUFF OFFICES AND LABORATORY BUILDING IN NEW YORK CITY



Onward

Capable of seeing millions of light years into the distance, the new 200 inch telescope marks another forward step.

The paper mill industry is also subject to constant change.

Black-Clawson and Shartle have greatly contributed to this development... super-cylinder and Fourdrinier machines; also Tugboat Annies, Barnacle Bills, Centraps, and other major items of stock preparation equipment.

BLACK-CLAWSON and SHARTLE BROS.

EXPANSION OF ARGENTINE PAPERMAKING INDUSTRY

From records compiled by the Direction of Commerce and Industry of the Ministry of Agriculture, the Argentine paper industry has made rapid strides during the past few years, and there is every reason to believe that this improvement in production as well as quality will be continued. From an actual statistical point of view it is interesting to note that during the year 1933 the total production of the industry was 74,354 tons, while during 1935 the output increased to 96,877 tons, or by 30 per cent.

The most recent data available regarding the domestic industry covers the year 1935. Many of the classes of production are indefinite and subject to individual interpretation, but the size and comparative importance of the industry can be visualized from the figures which are given in the following table:

Number of factories	19
Capital (according to last balance)	30,815,314 paper pesos
Production:	lbs.
Paper sacks	5,686,080
Cardboard containers	1,944,360
Cardboard	6,151,200
Cardboard for containers	529,283
Light cardboard	264,000
Plain wrapping paper	14,357,369
Kraft wrapping paper	704,000
Sulphite wrapping paper	726,000
Low grade wrapping paper	17,700,008
Fine and semi-fine wrapping paper	11,604,032
Imitation linen paper	352,000
Book paper	2,750,000
Miscellaneous wrapping paper	95,644,903
Filter paper	26,420
Miscellaneous	35,313,683
Value of production during the year—19,174,958 paper pesos.	

Increased Competition From Domestic Production to Be Expected in Paper Industry

Without doubt, the position of foreign manufacturers in the Argentine market will continue to be prejudiced and endangered by the domestic industry in years to come, but that does not obviate the fact that sales possibilities are now good and should continue to be so for some time. In many cases where specialized paper products have been introduced, it is economically unsound to attempt local production and for this reason overseas producers can expect a consistent and even increasing call for these special items.

The present prospects of this market insofar as the American paper manufacturer is concerned are not particularly bright. In addition to competition from the domestic industry, he has to meet the competition of European manufacturers who not only are apparently in a position to quote lower prices, but are also able in most cases to secure official exchange, while exports from the United States must pay the 20 per cent surtax. It is not expected that exchange control will continue indefinitely as a government practice, but in the meantime European products are becoming well known and printing and fabricating processes are being established in anticipation of the utilization of these particular types of paper. The competitive difficulties which will face American manufacturers even after exchange control has been lifted will, therefore, be most severe! The sale of specialized items from the United States should continue, and can probably be expected to increase.

Marketing is usually established through a sales agent, who in turn establishes exclusive distributors for his particular products. There are a few large houses that are distributors themselves, but this type of merchandising is in general rather the exception than the rule. The domestic industry, as might be expected, sells direct from the various plants or from warehouses established in the larger centers of population.—Assistant Commercial Attache DuWayne G. Clark, Buenos Aires.

Increased Demand for Paper in Argentina During 1936

Estimates of paper and paper products imported into Argentina during the first nine months of the current year indicate that receipts have been generally higher than during the corresponding period in 1935. Imports of the leading classes of paper and board into Argentina during the period mentioned were as follows:

	1935 Tons	1936 Tons
Wrapping paper	5,900	7,300
Newsprint	77,500	75,400
Other printing paper	3,400	5,000
Cigarette paper	500	400
Cardboard	11,800	13,400

Sweden continues to be the leading supplier of newsprint paper with some competition from Belgium and Germany. The most conspcuous feature of this trade is the marked increase in the share supplied by Norway, which now ranks second only to Canada. Germany, Sweden and the Netherlands have been the leading suppliers of other types of printing paper. An increase in the amount imported from the United States and the United Kingdom is, however, noticeable. The trade in imported cardboard has consistently amounted to about 1,500 tons per month during the current year. Finland, so far this year, has ranked first as a supplier of this product, followed by Sweden, Germany, the Netherlands and Norway, in the order named.

Imports of chemical wood pulp into Argentina have dropped off to a considerable extent this year, estimates placing receipts for the first nine months at 8,900 tons as against 11,500 tons during the corresponding period last year. The decline in chemical pulp imports, however, have been more than made up by an increase in mechanical wood pulp from 9,900 to 24,000 tons. Sweden supplied more than one-half of the chemical pulp and about 35 per cent of mechanical pulp. Other competitors in the mechanical pulp field were Canada, Germany and the United States. Germany also supplied more than one-fourth of the chemical pulp.—Assistant Commercial Attache DuWayne G. Clark, Buenos Aires.

I. G. FARBENINDUSTRIE TO MANUFACTURE WOOD PULP

The rapid expansion of the staple fiber and explosives industries in Germany has created a large additional market for chemical wood pulp. Reports have circulated for some time that the I. G. Farbenindustrie was to start the manufacture of chemical wood pulp for its own use. It is now reported that a mill for the manufacture of this product is under construction and will be in production by February of the coming year. The plant will consist of two departments, one for the manufacture of sulphite pulp with an output of 100 tons daily, and another in which a very high grade of chemical pulp will be produced by an entirely new process utilizing nitric acid. The latter mill will have a daily capacity of 25 metric tons. Copper beach wood will be utilized in the manufacture of these pulps. (Consul George A. Mackison, Frankfort-on-Main.)

Trade Talk

of Those Who Sell Paper in the Western States

COCHRAN TRANSFERRED TO CHICAGO

Andy Cochran is leaving San Francisco and his friends in the paper industry regret the move.

The news of this change is made in the formal announcement by the Mead Sales Co. that Andrew H. Cochran, for the past several years Pacific Coast representative of Dill & Collins, Wheelwright Papers, Inc., and Mead Sales Co., will make his headquarters in Chicago, with the Mead companies. The move will be made around the first of the year.

Mr. Cochran will retain supervision of the coast activities of these companies and Mr. Hugh Wallace has been transferred to the San Francisco office to work under Mr. Cochran's direction.

Mr. Wallace has been with the Mead Organization, representing Dill & Collins and Wheelwright in the New York and Dayton territories, for several years. He is thoroughly familiar with the grades manufactured by these mills. Among these grades are such well known brands as Dill & Collins' Black & White, Printflex, Tioga, De & Se Tints, and Flat White; also Wheelwright Ionic Blanks, Ionic, Olympic and Superfine Bristols.

HOLLAND ACTING MANAGER

Zellerbach Paper Co. announces appointment of Philo Holland as acting manager of its Los Angeles division, succeeding Mason Olmsted, who is on an extended vacation. Mr. Holland formerly was operating manager at Los Angeles.

J. T. Smith of the sales department of the Zellerbach Los Angeles division, has been made wrapping paper sales manager there.

DUNN ELECTED SECRETARY

H. Arthur Dunn has been elected secretary of the Pacific States Paper Trade Association, succeeding his father, H. Arthur Dunn, Sr., who died recently after serving in the post since 1930. Like his father, Mr. Dunn is a San Francisco attorney, with offices in the Robert Dollar Building.

MIELKES RETURN

Otto W. Mielke, San Francisco, general manager of Blake, Moffitt & Towne, Pacific Coast paper jobbers, returned in November from a tour of Japan with Mrs. Mielke, during which they visited their daughter and their new grandson in China. The Mielkes visited the principal cities of Japan and China and went to Korea and Mukden. They came back on the liner "Asama Maru."

MRS. GOEDJE PASSES

People in the paper fraternity at San Francisco were grieved to learn of the death in November of Mrs. Harry A. Goedje, whose husband has long been with the Crown Willamette Japer Co. there.

HEARING POSTPONED

Hearing of the action of the Federal Trades Commission against Pacific Coast paper jobbers has been postponed from November 13 to January 11. The hearing will be held in a federal court in San Francisco.

DOUD'S ADDRESS

Ira F. Doud, formerly manager of the Hawley Pulp & Paper Co. San Francisco office, is now in the paper and twine brokerage business in the Tilden Sales Building in San Francisco, having moved recently from his former address on Sacramento Street.

MRS. HOOTON INJURED

Mrs. Kenneth Hooton, wife of a member of the Zellerbach Paper Co. Los Angeles staff, was seriously injured recently in an automobile accident, suffering two spinal fractures, which will keep her abed for months. She operates the Wilshire Greeting Card Co.

SWIFT PASSES AWAY

Charles Swift, for more than 20 years a member of the sales force of Zellerbach Paper Co., San Francisco, died recently.

WILSON OPENS NEW JOBBING BUSINESS

Louis H. Wilson has opened an independent jobbing business in Los Angeles at 839 No. Spring St., handling wrapping paper and twine. Mr. Wilson is one of the three brothers of the Wilson Paper Co. here. He left the concern about a year ago to enter business for himself, returned to the company again for a short time, and is now again operating his own company.

WATSON DEMONSTRATES PAPER TESTS

Reeve T. Watson, advertising manager of Blake, Moffit & Towne, Pacific Coast paper distributors, recently piled most of the firm's laboratory into his car and hied to Fresno to address a collegiate press conference and then went on to Los Angeles to talk before a special sales meeting of his firm there. Mr. Watson's talks showed how Blake,Moffitt & Towne test papers and he also put on the Oxford Paper Co. film telling how paper is made. He displayed the tear tester, penetration tests, tensil and stretch tests, and absorption tests for blotters and towels.

JAGGARDS TO ERIE

B. P. (Doc) Jaggard, San Francisco, left Thanksgiving night with Mrs. Jaggard for a trip to Erie, Pa., for a meeting of the Hammermill Paper Co. sales staff. 'Doc" is in the San Francisco office of Hammermill. He will return about Dec. 15. This is his first trip to the mill in three years.

MAY HAVE TO MOVE

Several big San Francisco business houses located on streets approaching the new Bay Bridge are considering moving, because of the traffic which makes it almost impossible to handle big trucks in front of their establishments. Among these houses is Blake, Moffitt & Towne, Pacific Coast paper distributors, whose headquarters' location on First Street is affected. Formerly Blake could park half a dozen big trucks at right angles to its curb but now they must park parallel and they have found it necessary to stagger the trucks. Also, the firm is crowded in its present location and they hope to get larger quarters on a less congested street. Blake has been at this location since 1908, right after the 1906 fire.

PAPER MILL MEN'S CHRISTMAS PARTY

The Paper Mill Men's Club of Los Angeles, will gather at the Jonathan Club at noon, Dec. 23, for their first annual Christmas party.

The party is for the benefit of underprivileged boys, 25 of whom have been selected from various districts of Los Angeles. There will be a big Christmas dinner with all the trimmings, plenty of decorations, and a program of interest to boys from 12 to 15 years old.

Art Carlson of the Pioneer-Flintkote Co., always an active civic worker, is chairman of the committee. He is assisted by Art Fox, Paul Raab and Ralph Reid. Final details were settled by the committee and the executive committee and officers of the club at a luncheon held at the Pioneer-Flintkote dining room Dec. 9.

The sports committee of the Helms Athletic Foundation will cooperate in the affair. Bill Schroeder, manager, will take charge of the sports program following the dinner, and will present moving pictures of the 1936 Olympic Games, and other such features. Some of the Olympic stars and football players are expected to be on hand for the benefit of the boys. The club committee is also selecting gifts for each boy, to be presented at the party.

All members of the club are expected to be on hand for the party, and are invited to bring guests who would be interested.

PRITCHARD ELECTED VICE PRESIDENT OF P. A. C. A.

Charles Pritchard, sales manager of Bonestell & Co., San Francisco paper jobbers, is now a vice president of the Pacific Advertising Clubs Association and there is talk of him being president in 1939, when the San Francisco world fair—the Pageant of the Pacific—will doubtless attract the coast advertising convention to the Golden Gate metropolis.

DISPLAY ROOM INCREASES PAPER SALES FOR PACKER-SCOTT

A display room, with table and wall displays of various paper and janitor supplies, is the latest sales aid developed by Packer-Scott Company, paper jobbers of Portland. While this display room is new and hence has not been in service long, officials of the company report that it has already demonstrated its value as a sales stimulant.

The space occupied by the display, adjacent to but separate from the general office, occupies a space 36 by 36 feet. The displays, which are grouped by classes, serves to remind customers who call of the varied line of products carried and in a number of instances has reminded the customers that Packer-Scott Company carries items other than those sought by the purchaser, thus leading to additional sales.

The display also acts as a reminder to the company's own sales force of the many items carried.

Two walls, painted a dead white, are devoted in large part to a display of paper bags, including cellophane bags, in the sale of which the company specializes. Specialty bags of all sort are displayed.

Another separate display consists of picnic supplies, of which the company carries a large assortment. Other displays of paper include stationery and tablets, straws, roll papers, towels and toilet tissues, tissues, sanitary napkins, parchments and waxed papers, oyster and ice cream pails, gummed tape.

There is an effective wall display of twines and cordages, while the janitor supplies displayed include soaps, brooms, brushes, dusters, mops, chamois, sponges, rag, waste baskets, buckets and garbage cans, disinfectants, lamps, waxes and polishes.

Adjacent to the display room, but separated by a wall, is a sales room, with a desk for each salesman. Here a salesman may bring a customer and talk to him without interruption either from the office or outside sources.

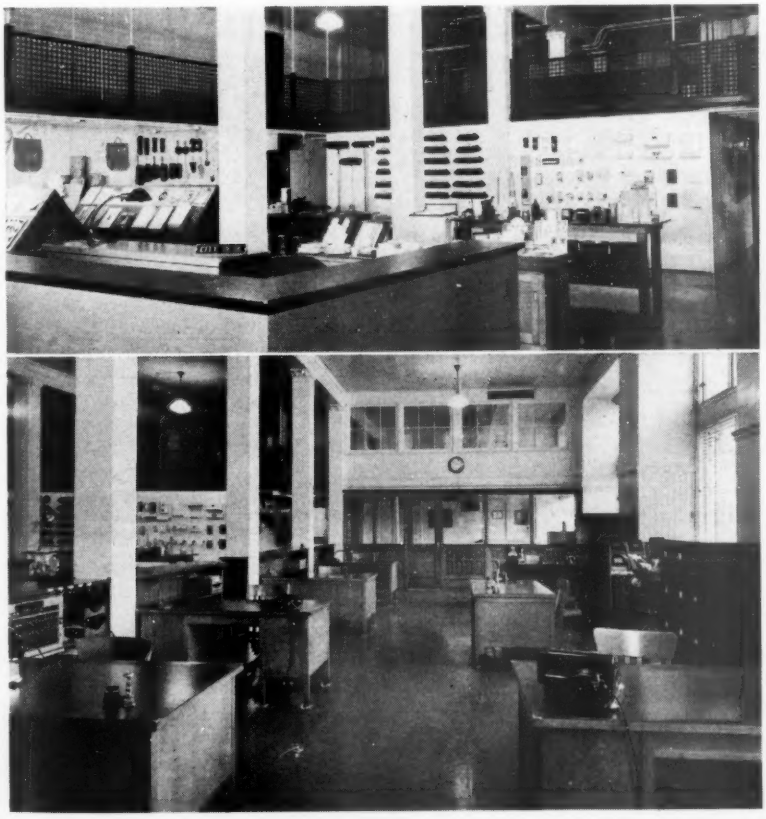
The company reports that business is good and the outlook for 1937 is excellent.

The Packer-Scott Company is gradually expanding its manufacture of disinfectants and soaps. Production is confined to the more easily produced disinfectants such as fly and moth sprays and to the specialty soaps which are rather simple to handle. A special department for the manufacture of these products is maintained on the fourth floor.

LOS ANGELES VISITORS

Making a tour of the Pacific Coast, C. W. Spickerman, representative of the George A. Whiting Paper Co. of Menasha, and the Whiting-Plover Paper Co. of Stevens Point, Wis., arrived in Los Angeles from Salt Lake City early in December. After a few days here he continued on up the Coast to visit the northern cities.

Another Los Angeles visitor about the same time was C. A. Hubbard of Kalamazoo, Mich., thin paper dealer, who spent two weeks here on business.



At the top is shown a part of the display of paper products and janitor supplies recently installed by the Packer-Scott Company, paper jobbers of Portland, Oregon. The lower picture shows the new general offices of the company with individual desks for each salesman.

Recent Los Angeles visitors included B. P. Jaggard, San Francisco representative of the Hammermill Paper Co., who was here Nov. 11 to 13.

W. J. Pilz, manager of the Everett Pulp & Paper Co., was here the middle of the month from Everett, Wash., calling on the trade with J. L. Murray, sales-manager from San Francisco.

Oscar Besosa, formerly export manager of the eastern division for the Crown Willamette Paper Co., and now agent for the company in Puerto Rico, was at the Los Angeles plant for a few days early this month, after spending some time at the San Francisco office. He planned to return to Puerto Rico from Los Angeles.

O'KEEFE JUNIOR ARRIVES

Tom O'Keefe, manager of the Sierra Paper Co., Los Angeles, who broke into the news last year when he was married at Detroit, breaks into print again by becoming the father of a baby boy, born in Detroit, former home of Mrs. O'Keefe. The new paper man was named Thomas John O'Keefe.

Mr. O'Keefe's brother, Tim, who is a couple up on Tom through the arrival of twins a short time ago, reports that the new youngster is the spittin' image of his father, and that he plays only with toys such as mullen testers, thickness gauges, etc.

Certain paper men around Los Angeles assert they are still waiting patiently for the O'Keefe cigars.

JEFFRIES OPENS BRIDGE

Donald L. Jeffries of the printing paper sales department of the San Francisco headquarters of Blake, Moffitt & Towne, was chairman of the San Francisco Junior Chamber of Commerce Marine Committee which staged a big marine parade and pageant during the November celebration marking the opening of the San Francisco-Oakland Bay Bridge. He is a son of F. E. Jeffries of the Tacoma Paper & Stationery Co.

HUELAT BREAKS COURSE RECORD

Walter W. Huelat, Los Angeles division manager for Blake, Moffitt & Towne and president of the Pacific States Paper Trade Association, was on one of his rare visits to San Francisco in November. Mr. Huelat recently broke onto the sport pages of Los Angeles papers by shooting 75 on the San Gabriel Country Club course—breaking his own and his club's record.

SMITH JOINS HOLE-IN-ONE CLUB

J. T. Smith, who has just been made sales manager of the wrapping paper department for the Zellerbach Paper Co. in Los Angeles, joined the hole-in-one club Thanksgiving Day by making the cup in a single stroke at the Potrero Country Club.

LOS ANGELES PAPER BUSINESS GOOD

Los Angeles mill men and paper jobbers almost unanimously report fall business steadily improving, and prices strengthening. Even those lines which ordinarily fall off in volume at this time of year are showing strength.

The marine strike has handicapped numerous merchandisers in obtaining supplies, and stocks in certain lines are short. This factor, added to growing demand, has helped to firm prices, a welcome trend in this market.

CURTAINS OF CELLOPHANE

Paper Supply Company Produces Many Unique Products

When you receive your Christmas presents, wrapped in Cellophane and tied with decorative ribbon made of Cellophane, or see the new shimmering Cellophane curtains and spiral streamers among the Yuletide decorations of fine department stores on the Coast, chances are that it will have been converted or distributed by the Paper Supply Company of Los Angeles.

As a combination converter, distributor and jobber of converted Cellophane and products made of Cellophane, this company does a tremendous coast-wide business with a long list of transparent wrapping and decorative products.

Starting early in the game, the Paper Supply Co. has not only kept pace with demands of the trade, but has been active in developing new uses for Cellophane, and the creation of new products that serve useful and artistic purposes. Smart educational sales promotion has been employed by placing slip sheets in resale rolls, instructing the buyer in new uses for their purchase. Instruction books, giving details of packaging uses, etc., even to how to crochet with Cellophane ribbons, are distributed. Special booklets that are well illustrated and printed in color show packaging and tying for tone effects with different colors of sheets and ribbons.

Du Pont Cellophane comes to the plant in large rolls, and is then converted in many ways. Resale rolls of both plain and decorated Cellophane are made by the hundreds of thousands, and sold through variety, department and chain stores. Cutter box rolls for small users such as confectionery stores, window trimmers, etc., constitute another class of product. For household use, a small roll package of moisture-proof Cellophane is produced, useful for food wrapping and for refrigerator purposes.

The company is also a large converter of tissue paper, shelf and drawer lining paper, including holly paper and various fancy gift wrapping papers.

Among the new specialty products developed are new fringe Cellophane curtains in various lengths, widths and colors, for decorative purposes. These will be seen this fall as hangings in the best department stores, as part of their Christmas decorations. They are very beautiful and highly effective for this purpose.

Another new converted item is a display curtain made of "Glassips," a Cellophane soda straw, a product on which the company has applied for a patent. These are made in widths up to 72 inches, all in one color, or in a combination of colors. In narrower widths, 8 to 36 inches, they are used for spiral garland streamers for store decoration and the like.

Shredded Cellophane hanks, used for tree decoration and similar purposes, is another converted product, and is sold under the trade name of "Deco-floss."

As Pacific Coast distributors of "Glassips," the company has developed many new uses for them in package embellishments, garland building, curtains, for building small Christmas trees, for florist's bouquets, etc. This has brought a volume of business even larger than even the regular soda straw business. Three years ago the company purchased their supplies in small shipments of 25 or 30 cases; now they receive "Glassips" in carload lots.

The transparent soda straws are available in 10c package units, in standard bulk packages, in jumbo size for malted milks and other heavy drinks, and in long lengths up to 72 inches for special purposes. More than 50 jobbers on the Coast are handling them, and finding them a profitable item.

The Paper Supply Co. also distributes Cellophane ribbons, as coast distributor for the three mills making the product, Freydberg Bros., Du-Tone Ribbon Corp., and the Walser Manufacturing Co., featuring such brands as Excell-o, Du-Tone, Walsello and Deco-Tie.

The complete line comprises about 1,000 individual numbers, there being one for every purpose, from the quarter-inch size which is universally used by the candy and bakery trade, laundries, etc., up to the fanciest type of printed

SOME OF THE WONDERS OF CELLOPHANE

A display of cellophane products converted and distributed by the Paper Supply Company, showing part of the extensive line at the Los Angeles County Fair at Pomona, September 18th to October 4th. More than 500,000 people paid admissions at the fair and saw this display. The roof of this display is made of Cellophane "Glassips."

ribbon 5-inches in width. Included in the line are numerous numbers of double-ply ribbons, some with threads inserted for strength, some with silver threads for special effects.

Such ribbons are used by practically all department stores for gift wrapping, and some of these merchandisers buy as much as 1,500,000 yards at one time. Another type of buyer recently purchased in one order 2,000,000 yards for raisin cluster tying.

The entire Pacific Coast is covered by the firm's activities, with salesmen in the Pacific Northwest, San Francisco, and the Los Angeles area. Mr. C. Cleve Bolyard, president of the company and general manager, directs sales, while Mr. M. H. Strickler, vice president, is in charge of all converting and plant operations. Miss Bess Marshall is secretary-treasurer of the company, and credit manager.

In the converting department, the company operates its own printing plant for bands, wrappers, labels, etc., of which they print millions each year. Equipment is simple but effective, and includes shredders, sheeters and rewinders.

From left to right, Miss Bess Marshall, secretary-treasurer; Mr. M. H. Strickler, vice-president, and Mr. C. Cleve Bolyard, president of the Paper Supply Company of Los Angeles. They are inspecting a fancy gift package wrapped in Cellophane and embellished with Cellophane ribbon and a spray of "Glassips."

BISHOP BACK

Robert C. Bishop, San Francisco representative of eastern paper mills, returned recently from a trip to the Atlantic Coast and reported all of his mills were running to capacity and were from three to six weeks behind in deliveries.

NO GOLF FOR TAVERNER

The golfing activities of William Taverner of Taverner & Fricke, Los Angeles paper merchants, were sadly curtailed last month while he went about with a cane to ease a strained leg. This might be considered almost a major calamity to Mr. Taverner, one of paperdom's ace golfers.

SPIES EAST

Charles Spies of the Cupples Co., Los Angeles, went east at the end of November on his annual trip to St. Louis. He visited New Orleans en route, and after a trip of three weeks, returned to Los Angeles Dec. 20.

ROTTLER LISTENS EN ROUTE

Bert Rottler, Los Angeles manager for the A. P. W. Paper Co., is sporting a new Dodge sedan, fitted up with the latest accessories, radio, etc.

THORPE RECOVERING

George Thorpe, one of the key men of the Carpenter Paper Co., Los Angeles, has recently been seriously ill with bronchial pneumonia. He was taken ill last month, but at last reports was progressing nicely and was expected back at the office before Christmas.

L. A. JOBBERS TAKE HOLIDAYS

Los Angeles paper houses have all decided to close Saturday, Dec. 26 and Jan. 2, making two three-day holidays for their employees at Christmas and New Years.

MIELKE VISITS L. A. BRANCH

Otto Mielke of Blake, Moffitt & Towne, spent a week early in December at their Los Angeles branch, shortly after returning from a tour of China.

CARTER, RICE MEN

N. D. Hopkinson, sales manager of Carter, Rice & Co., Inc., San Francisco, was in St. Joseph's Hospital in that city early in December suffering from the influenza.

W. R. Orsburn of Los Angeles has become manager of the Carter-Rice credit department at San Francisco.

B. M. & T. CLUB PLANS PARTY

San Francisco employes of Blake, Moffitt & Towne will hold their annual B. M. & T. Club Christmas dinner dance at theDeauville Club December 18. This club has been in existence about 10 years. Miss Marjorie Hov is president and Jack Swait secretary and treasurer.

VISITS COAST

Carlton Smith of the American Envelope Co., West Carrollton, Ohio, arrived in Seattle late last month, on his annual western trip, and came on down the Coast to Los Angeles, where he spent a week before returning east.

ABRAMS EAST

Sam Abrams, head of the U. S. Paper Co., returned to Los Angeles Dec. 6 after spending a full month in the East, during which time, it is understood, he inspected converting machinery in which he is interested.

JONES COVERING COAST

J. B. Jones of the Beckett Paper Co. spent the month of November travelling over the entire Coast on one of his periodic sales trips.

REMMER COVERS ARIZONA

Lester Remmer, Los Angeles sales manager for the Crown Willamette Paper Co., made a flying trip through Arizona early this month, contacting dealers in the territory.

GREEN FINISHES NEW HOME

Newby Green of the coarse paper sales department of the Crown Willamette Paper Co. in Los Angeles, recently completed a fine new home in San Marino, and moved in last month. It is a beautiful Colonial type home, with 10 rooms.

COLD WEATHER RESPONSIBLE FOR PRINTING PAPER TROUBLES

With the advent of cold weather, printing papers require certain handling precautions not necessary during the summer months, according to advice from the National Bureau of Standards. Paper brought into the pressroom from freight cars, motor trucks or unheated warehouses during cold weather is usually many degrees colder than the room air. When the paper is exposed while still colder than the air, the edges absorb moisture rapidly by condensation from the warm air in contact with it and wavy edges develop very quickly. The results of tests with large piles of paper on skids and with paper in cases indicate that it warms very slowly. Paper 50 degrees F. colder than the room air required 96 hours to reach temperature equilibrium with the air. Hence, all paper brought into the pressroom from colder surroundings should be left sealed in cases, or covered with waterproof wrappers if on skids, for several days before exposing the paper ot the room atmosphere. If this precaution is not taken, wavy edges are almost certain to be encountered during the winter season. This is one of the findings of research on lithographic papers being made in cooperation with the Lithographic Technical Foundation.

GUNTHER BACK FROM VACATION

Chet Gunther, Crown Willamette Paper Co. coarse paper sales department, returned to his Los Angeles office last month after a vacation trip to the Pacific Northwest, where he visited his mother at Portland.

CUBAN CUSTOMS TREATMENT FOR FRUIT WRAPS

In view of recent difficulties in clearing shipments of paper at Habana Customhouse, the Director General of Customs has issued a circular clarifying former rulings. It is now stated that this paper when imported from the United States is granted a 50 per cent reduction of the import duties shown under Tariff Item No. 152-C of the Cuban Customs Tariff. (Commercial Attache Walter J. Donnelly, Habana.)

LINK-BELT ACQUIRES ROTARY LOUVRE DRYER

The Link-Belt Company with headquarters in Chicago and offices in principal Pacific Coast cities, has recently acquired the manufacturing and sales rights for North America for the Dunford & Elliott rotary louvre dryer. A number of installations are operating in Canada, Europe and in Japan.

It is being offered for the drying of all types of granular materials, coarse or fine, or of irregular shape, size and consistency; all types of crystals and powders manufactured or used in the chemical industry; factory refuse and waste; vegetable products, etc. It has also been employed as a heating or cooling unit; as a general reaction vessel; and for evaporating liquids on a solid substance. Among the materials handled are coal, coke, clay, fertilizers, grain, ores, cereals, salt, sand, sugar, wood chips and bark, cement clinker and all manner of chemicals.

The dryer is described briefly as a mechanically rotated horizontal drum with a series of internal channels near the circumference, into which hot air is admitted with a fan. These channels are covered by tangential plates which overlap in such a way as to leave a gap for hot air to pass from the channels into the inside of the drum and into the material contained therein, and at the same time to prevent any materials from falling back into the channels. The channels are tapered so as to give the inner lining of the drum a gentle slope from the feed end to the discharge end. As the drum revolves, fresh channels come underneath the charge, but, as the hot air can only enter the channels when they are actually underneath the charge, all the gases must pass upwards through the bed of material.

It is said that the design of the rotary louvre dryer, combined with the gentle mixing action to which the bed is constantly submitted by the slow rotation of the drum, causes the hot air to come into intimate contact with every part of the bed, resulting in efficient heat transfer and uniform drying.

The following are among the installations made in the sawmill and pulp and paper industries:

Hofors, Sweden. Dryer for sawmill refuse and charcoal breeze, 6′ 7″ dia., 6′ 7″ long. Capacity: 85 cu. ft. (15 cwt.) per hr., reducing the moisture from wood chips from 53% to 10%, and from charcoal breeze from 55% to 28%. Water evaporated per hour: 815 lbs. and 575 lbs. respectively.

Hofors, Sweden. Dryer for wood chips, 8′ 10″ dia., 13′ 1″ long. Capacity: 285 cu. ft. (3 tons) per hr., reducing the moisture from 60% to 30%. Water evaporated per hour: 2850 lbs.

Fagersta, Sweden. Dryer for wood chips, 8′ 10″ dia., 13′ 1″ long. Capacity: 285 cu. ft. (3 tons) per hr., reducing the moisture from 60% to 30%. Water evaporated per hour: 2850 lbs.

Hollofors, Sweden. Dryer for wood chips, 8′ 10″ dia., 7′ 3″ long. Capacity: 110 cu. ft. (18 cwt.) per hr., reducing the moisture from 60% to 20%. Water evaporated per hour: 1300 lbs.

Sandviken, Sweden. Dryer for wood chips, 8′ 10″ dia., 16′ 5″ long. Capacity: 280 cu. ft. (2.1 tons) per hr., reducing the moisture from 40% to 15%. Water evaporated per hour: 1400 lbs.

St. Freres, Bordeaux. Dryer for wood chips for cellulose, 11′ 3″ dia., 26′ 3″ long. Capacity: 850 cu. ft. (5.9 tons) per hr., reducing the moisture from 50% to 20%. Water evaporated per hour: 5500 lbs.

Krumau, Czechoslovakia. Dryer for bark, sawdust, etc., 9′ 10″ dia., 26′ 3″ long. Capacity: 300 cu. ft. bark per hour. Water evaporated per hour: 2200 lbs.

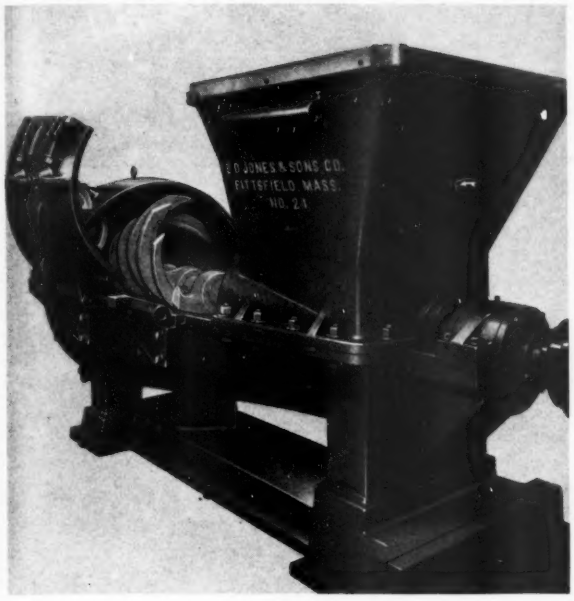
Hallstavik, Sweden. Dryer for bark, etc., 11′ 3″ dia., 23′ 0″ long. Capacity: 1300 cu. ft. (9 tons) bark per hr., reducing the moisture from 63% to 40%. Water evaporated per hour: 7500 lbs.

Surshammer, Sweden. Dryer for wood chips, 8′ 10″ dia., 11′ 6″ long. Capacity: 160 cu. ft. (1.5 tons) per hr., reducing the moisture from 60% to 20%. Water evaporated per hour: 1700 lbs.

Hofors, Sweden. Dryer for wood chips, 8′ 10″ dia., 16′ 5″ long. Capacity: 300 cu. ft. (2¾ tons) per hr., reducing the moisture from 60% to 20%. Water evaporated per hour: 3100 lbs.

Orrafors, Sweden. Dryer for wood chips, 6′ 7″ dia., 8′ 10″ long. Capacity: 110 cu. ft. (17 cwt.) per hr., reducing the moisture from 50% to 20%. Water evaporated per hour: 700 lbs.

Link-Belt lays claim to having built dryers of various types for at least 20 years, and will send any interested reader a copy of its new 4-page illustrated book No. 1511 covering rotary louvre dryers.



the Jones Pulper

for . . .

Efficient Pulp Disintegration ...Reject and Waste Handling

Reduces large capacities of all type pulps ready for bleacher, beater, or adding to other furnishes. Eliminates costly method of pulp break down in beaters, thereby saving power, and wear on beater operation. Pulp capacities from 2,000 to 6,000 lbs. per hour.

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Permits treatment of sulphite, Kraft and groundwood pulps . . . assures accurate regulation of stock consistency . . . greater capacities . . . low horsepower consumption . . . quick accessiblity . . . simplified design, and sturdy construction.

Thirty-one Jones Pulpers purchased by mills in past three years, with six repeat orders, evidence its increasing use for every type of pulp and paper production.

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Jones

E. D. JONES & SONS COMPANY
Pittsfield, Mass.

Hamilton Cylinder Wet Felts Make the Best Wrapping Paper

YOU CAN'T make a silk purse of a sow's ear and you can't make good wrapping paper of low grade pulp. But even the best of pulp cannot assure excellent paper unless the felt at the wet end of the paper machine removes the excess water uniformly, thoroughly and rapidly without marring the even texture of the web. • Hamilton Felts do these things to perfection. And by so doing they make the best use of the sulphate, sulphite, ground wood or whatever furnish passes over the screen. You can prove it by any test known to paper experts—tearing, "popping" or by actual use in your own shipping department.

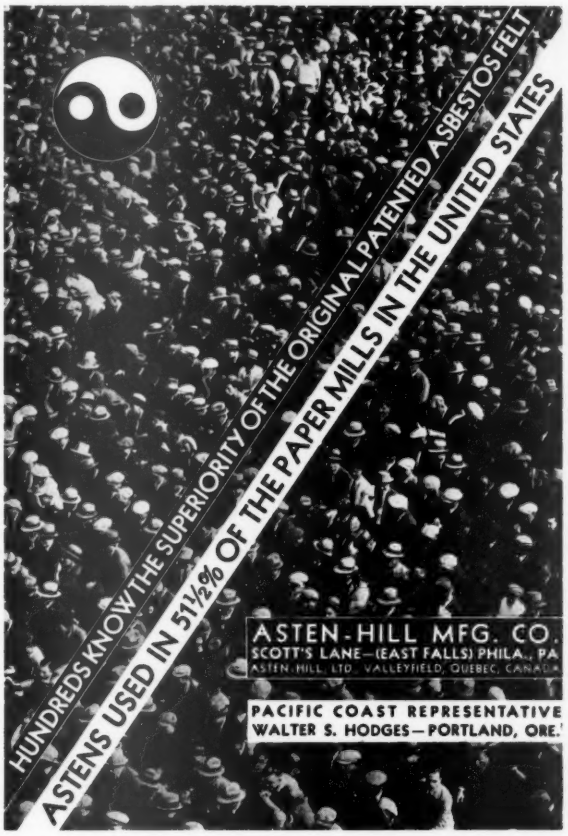
From the thinnest tissue to the coarsest board, there is a Hamilton Felt that will assure increased production and reduced costs.

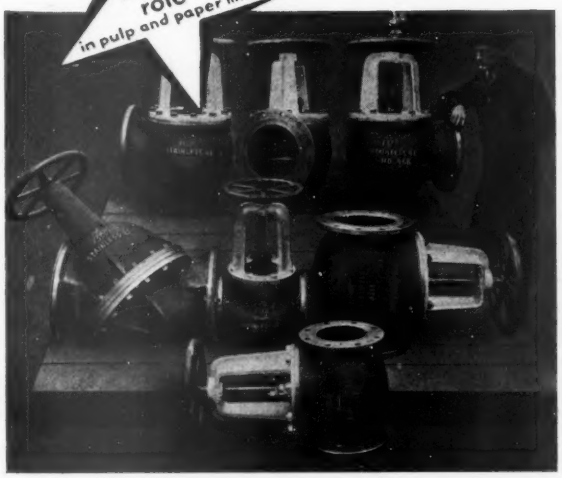
SHULER & BENNINGHOFEN

HAMILTON, OHIO

Miami Woolen Mills, *Established 1858*

Hamilton Felts





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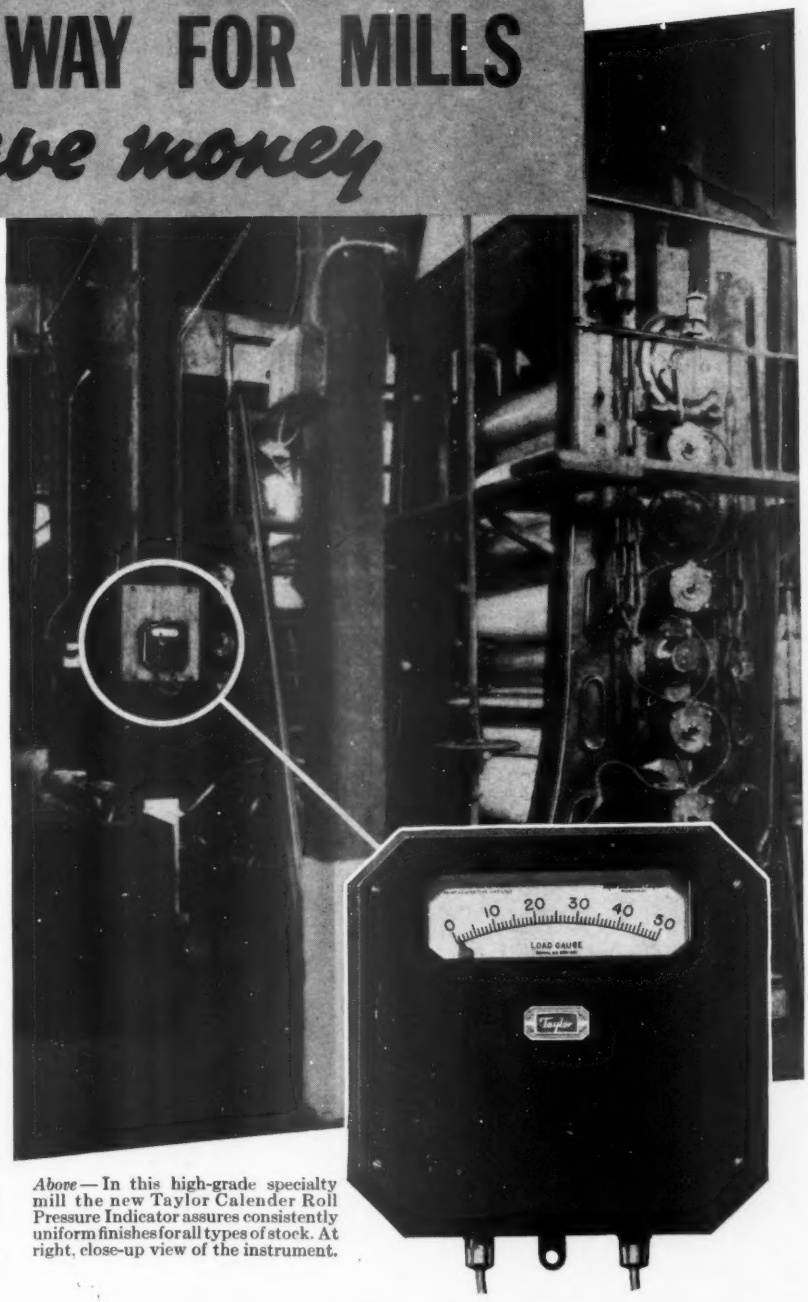

Above—In this high-grade specialty mill the new Taylor Calender Roll Pressure Indicator assures consistently uniform finishes for all types of stock. At right, close-up view of the instrument.

THE new Taylor Calender Roll Pressure Indicator accurately measures and indicates the pressure exerted upon both ends of the roll. It enables the operator to maintain a uniform nip pressure across the entire width of the sheet. It assures a uniform finish . . . permits the required roll pressure for any given finish to be readily duplicated at any time.

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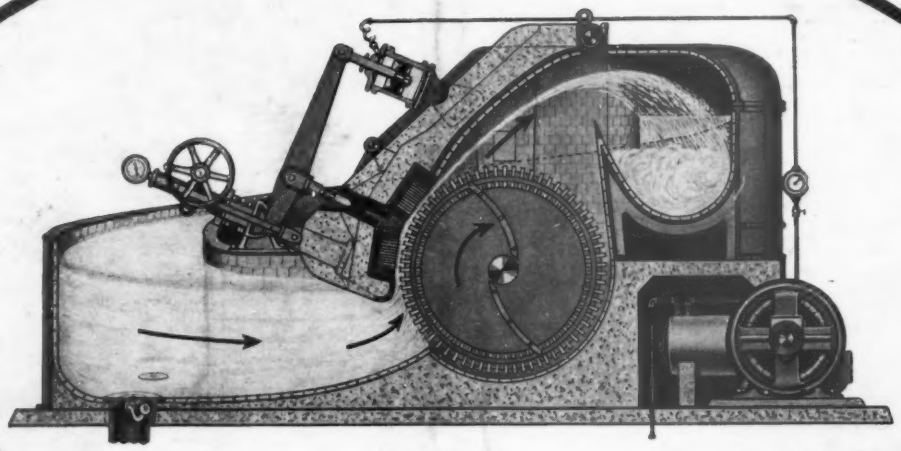
TEMPERATURE, PRESSURE *and* **FLOW INSTRUMENTS**

LOWEST H. P. PER TON OUTPUT
with the THORSEN-HÉRY BEATER



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